DRUG & COSMETIC INDUSTRY

MAY, 1952

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FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
MAX FRANKEL, Art Director

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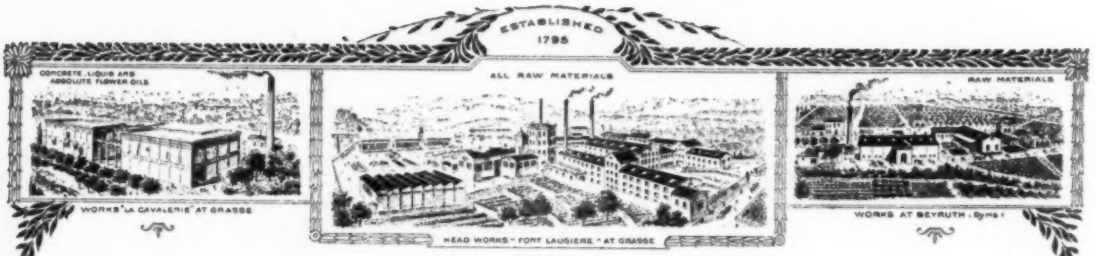

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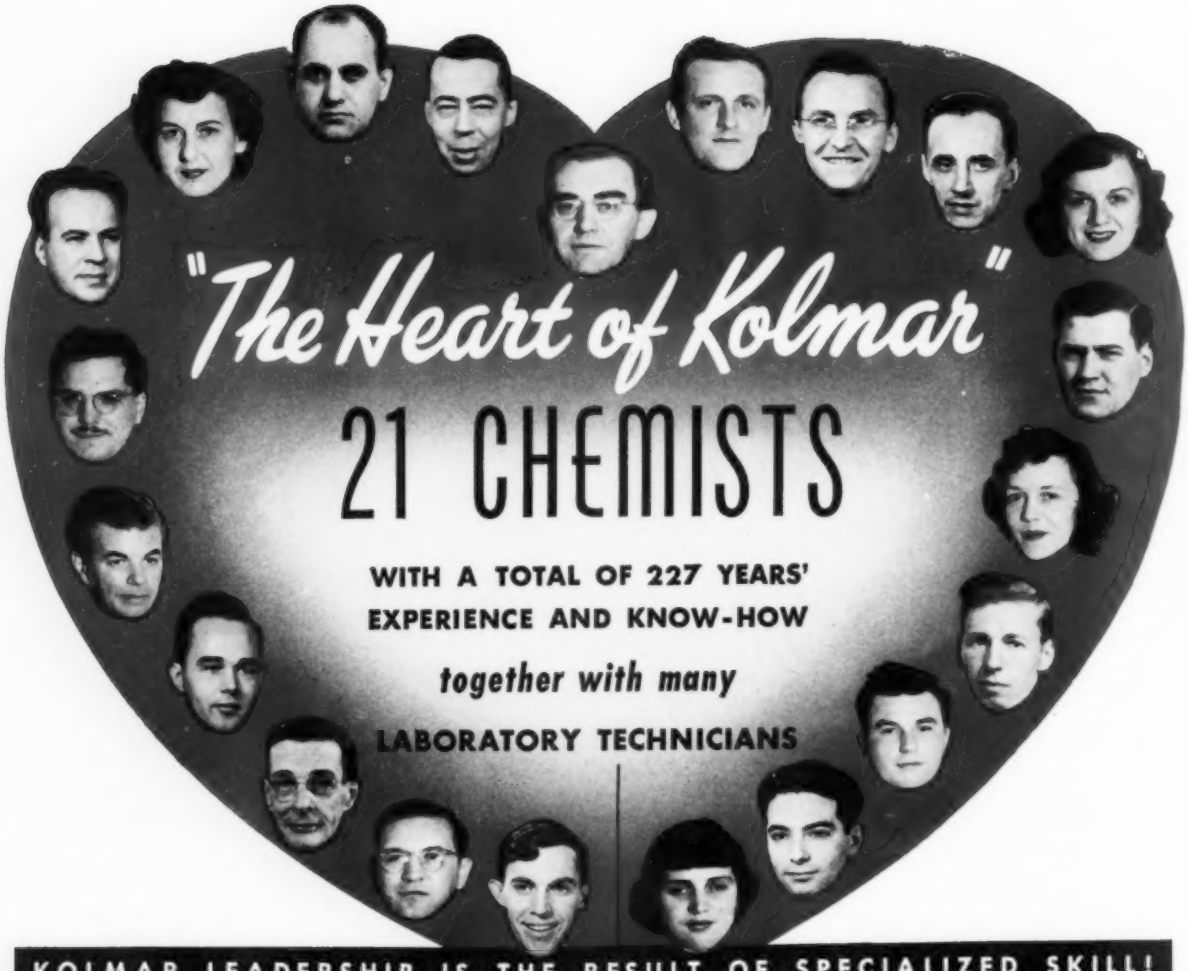
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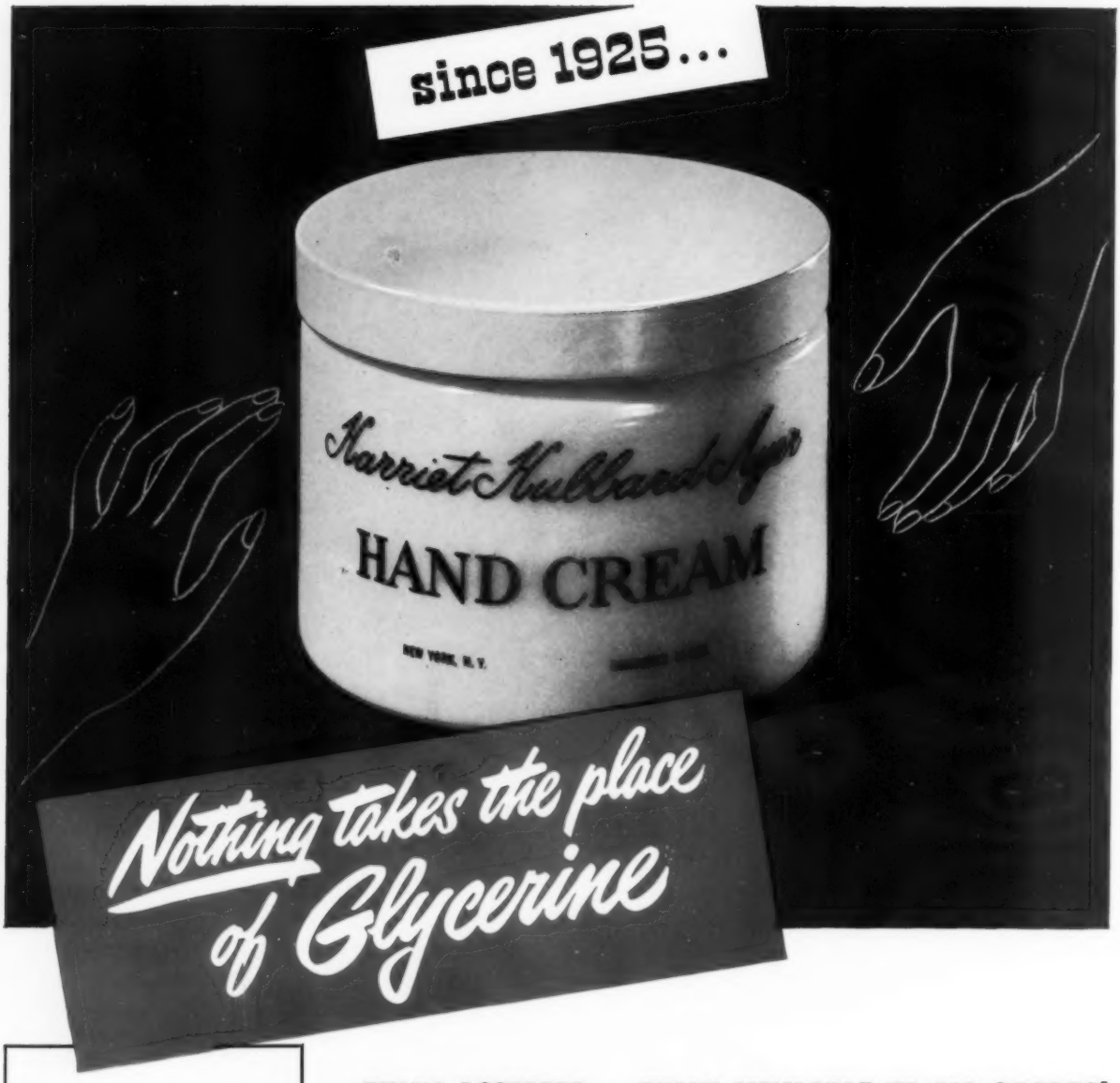

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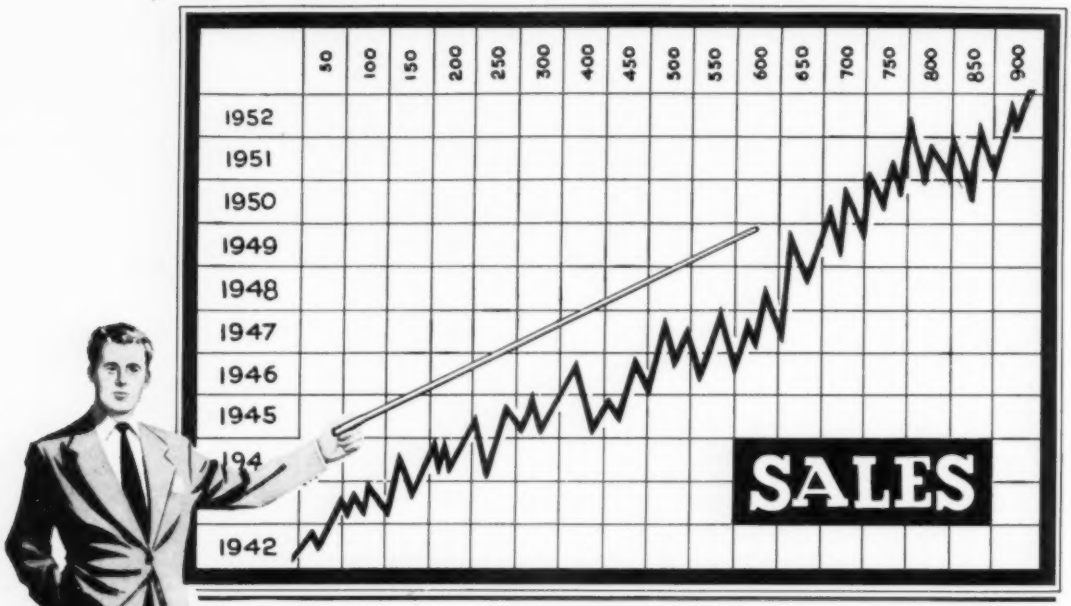

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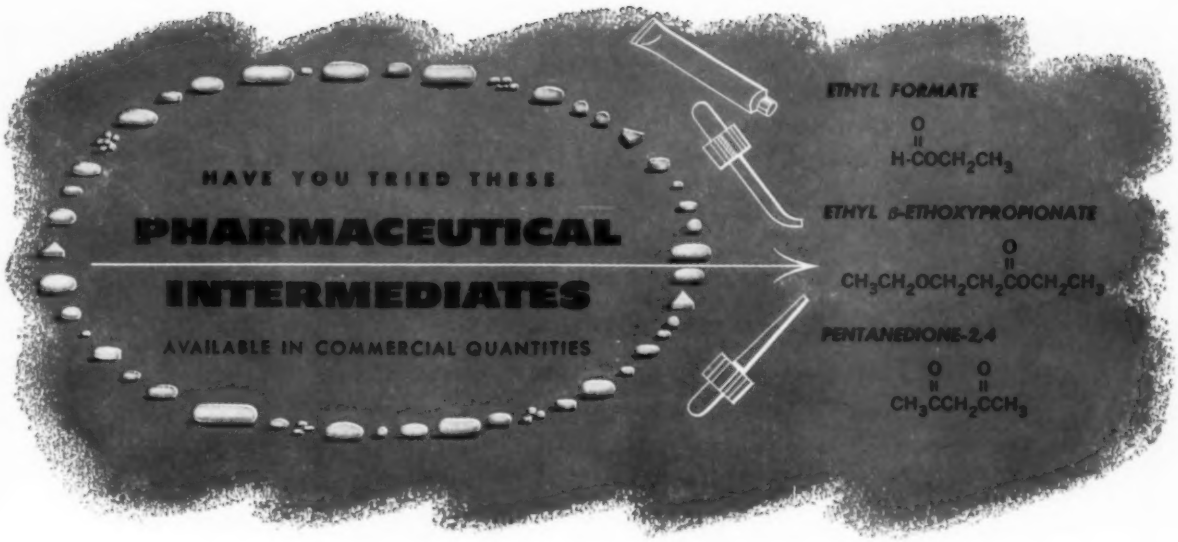

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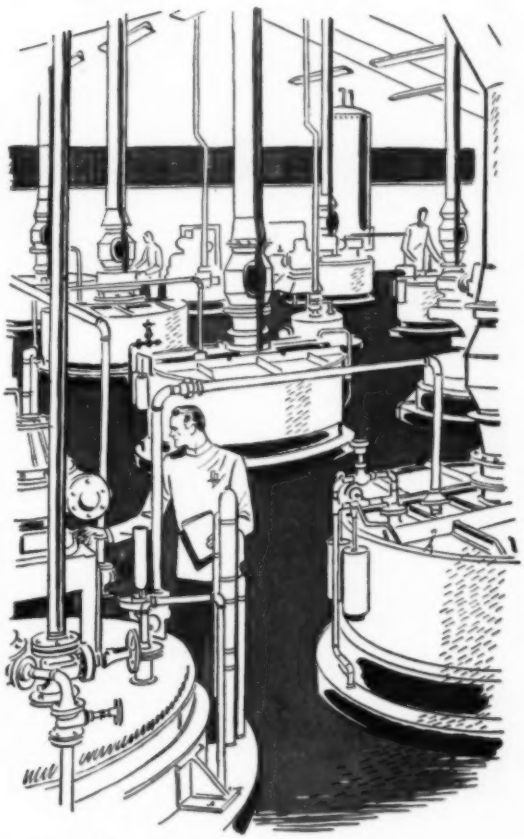

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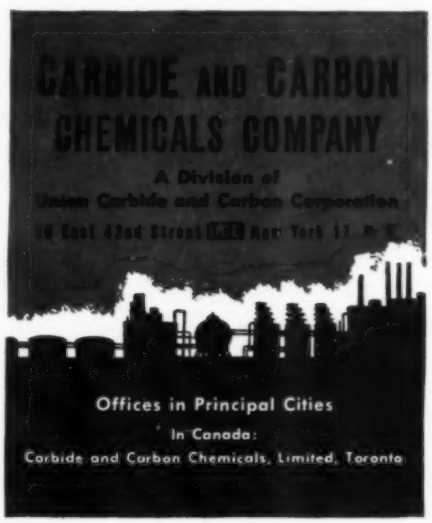

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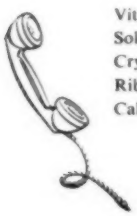

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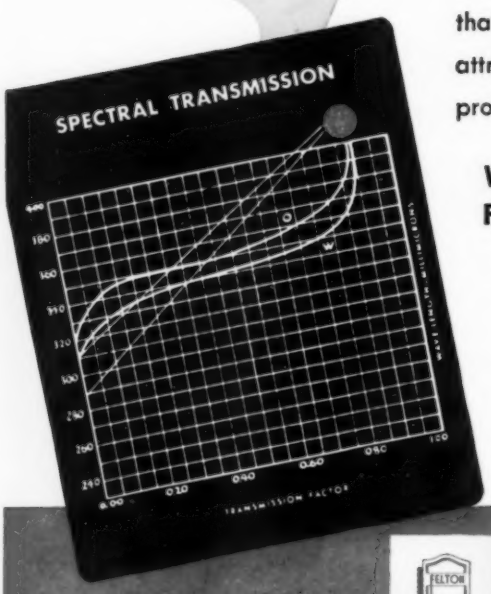

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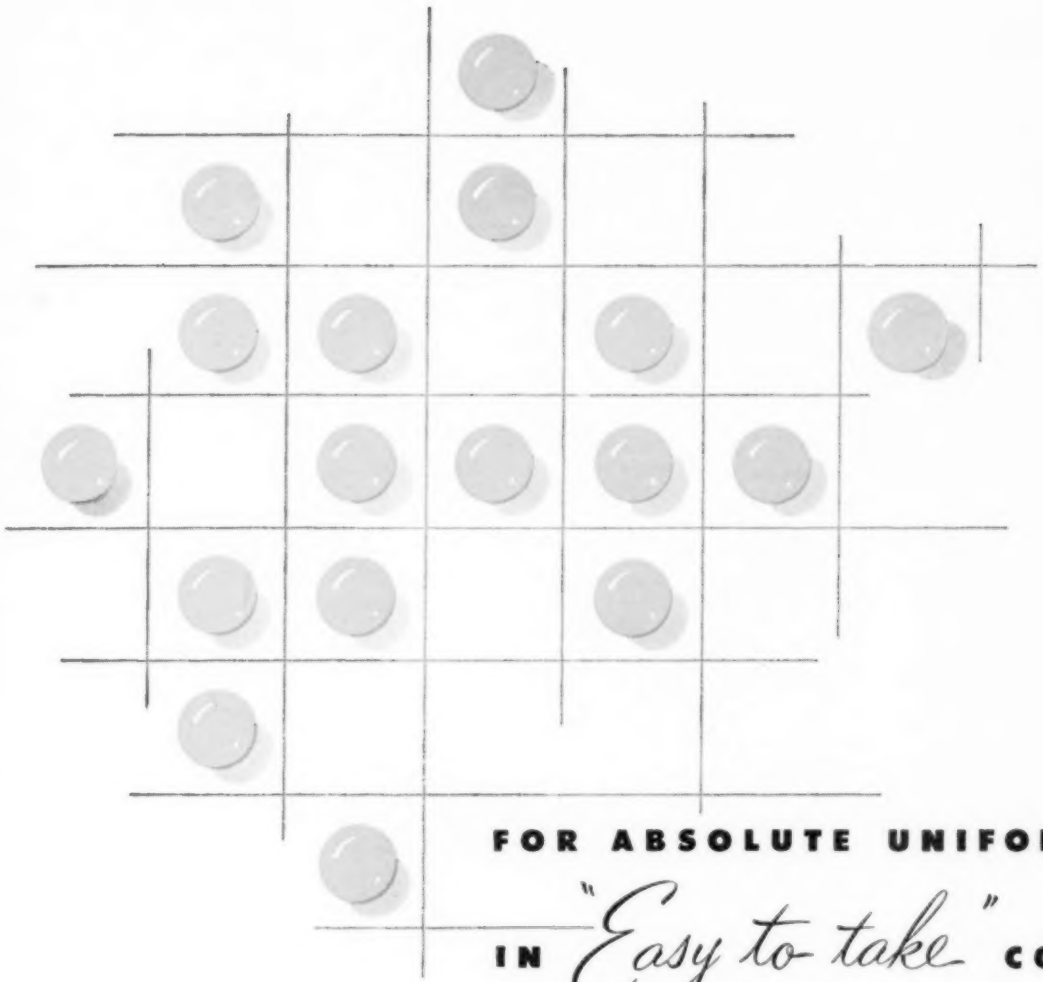

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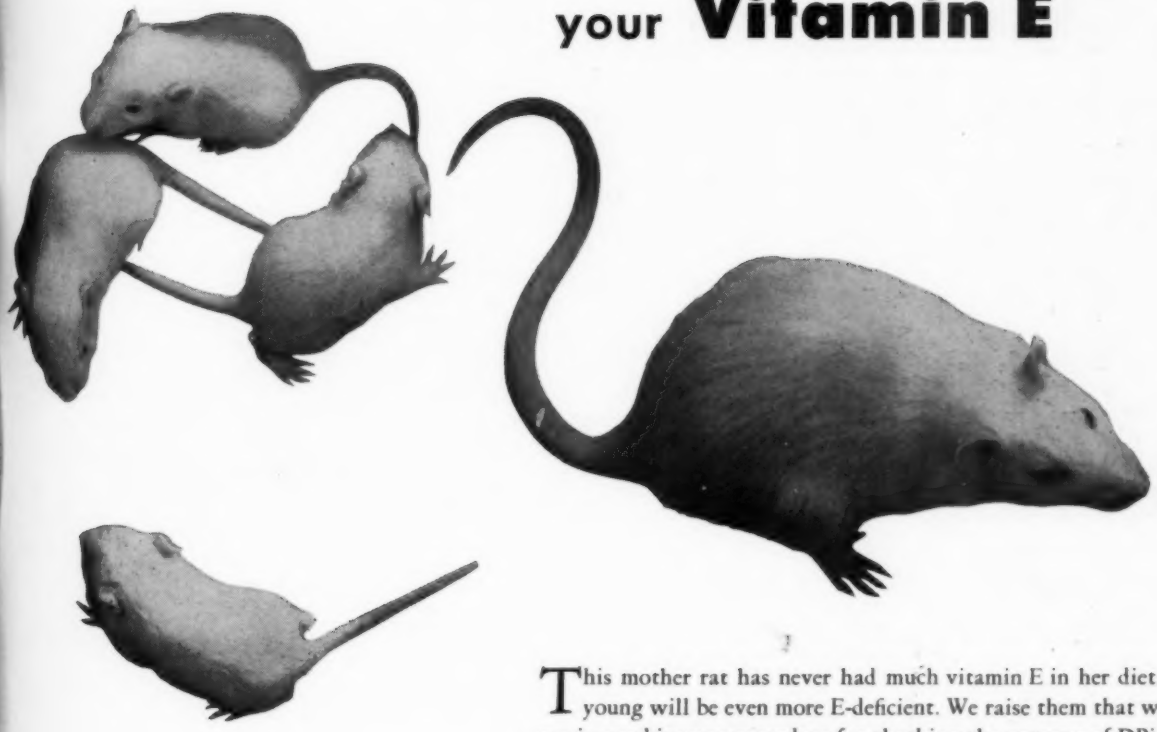

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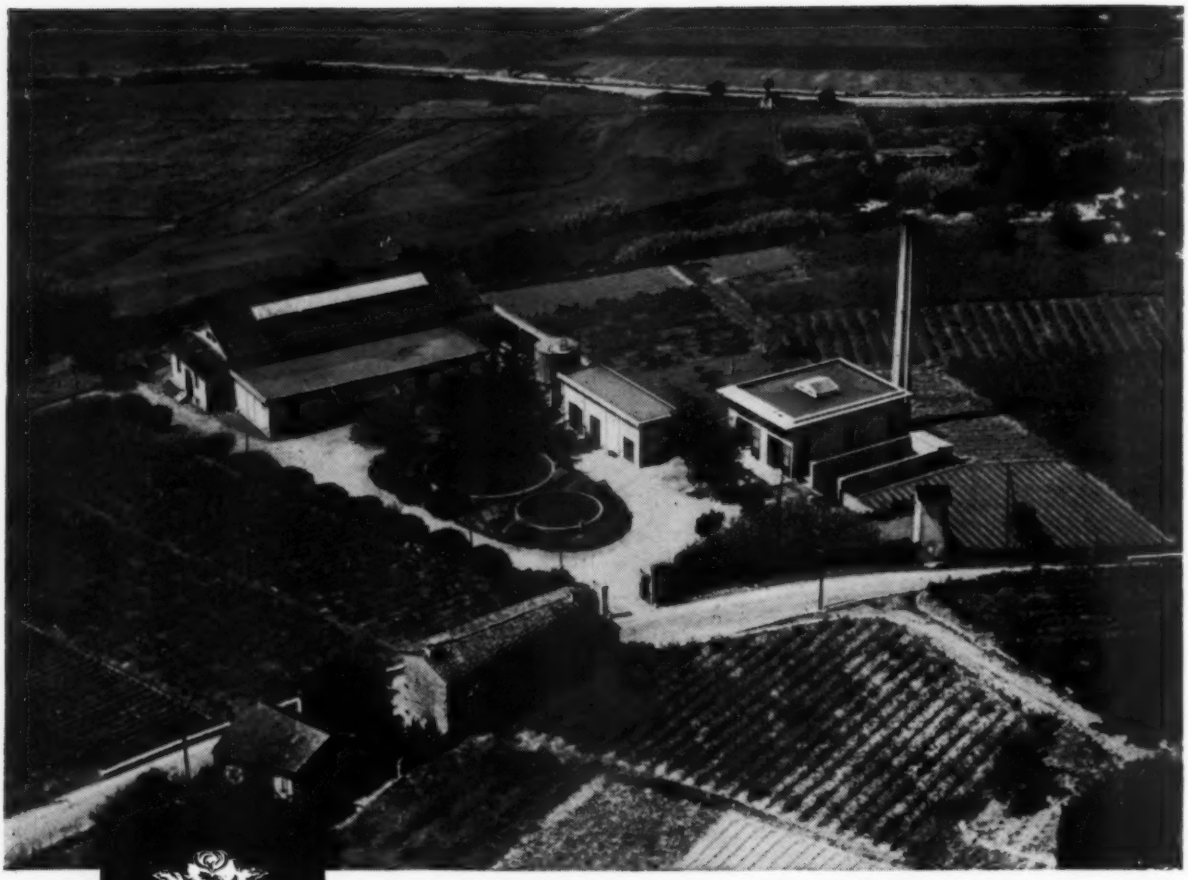

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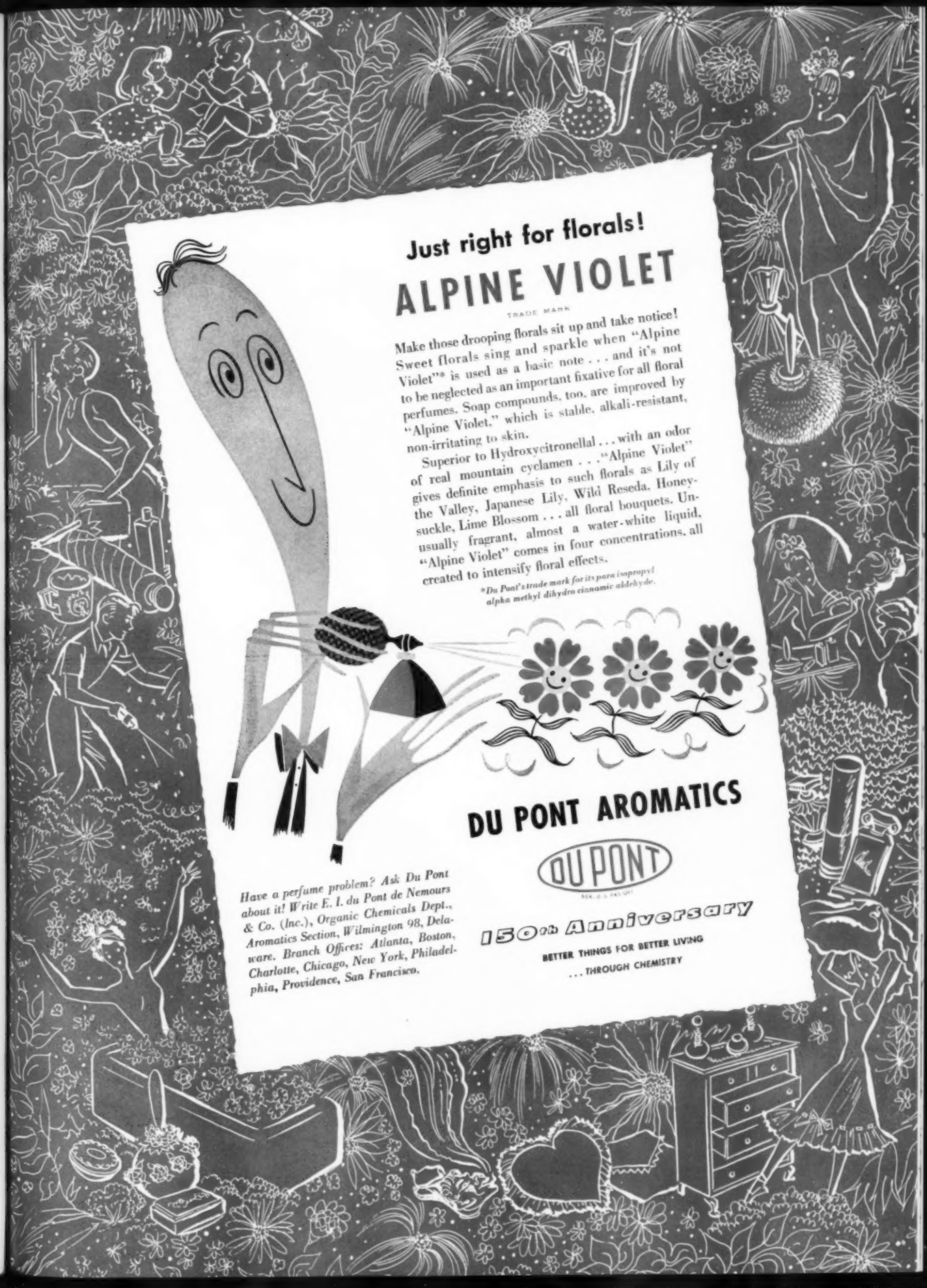
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Keeping Posted

Alger Award to Kerrigan

JAMES J. Kerrigan, president of Merck & Co., was one of seven men to receive the Horatio Alger Awards for 1952. The seven men honored were voted for on a ballot circulated among more than 3,000 educational leaders throughout this country. The awards, represented by bronze plaques, are given annually to men who, in the American tradition, have risen from humble beginnings to the most outstanding achievements and service. Mr. Kerrigan, for example, started with Merck as a $3.00 a week office boy.

Among the other winners are Ralph Bunche who worked his way through college as a janitor, and Charles Kettering, who was a lineman for County Telephone Co.

Mr. Kerrigan, who was born January 25, 1894, in Brooklyn, N. Y., spent his infancy and boyhood in Dublin. All his education was in schools associated with the Holy Faith Convent, Glasnevin, and the Christian Brothers and St. Mary's College in Dublin.

At the age of 13 he returned to this country landing in New York in 1907. He secured a job with Merck & Co., then a comparatively small drug firm with offices on University Place, as an "order bench boy," at $3.00 a week, carrying small orders to various chemical and drug companies in downtown New York.

During the next four years he held nine different positions in Merck, and in 1911 went to Canada as part of a Merck task force to organize a Montreal office. From that time he rose rapidly into the higher echelons of the company—as assistant manager of the Montreal office (1912-1914), chemical buyer at New York (1914-1921), vice-president and general manager of sales and chemical purchases (1921-1927), vice-president for sales (1927-1945), then as commercial vice-president and director, senior vice-president, and from 1950, president.

In Mr. Kerrigan's 45 years with Merck, sales have increased from $2,330,046 in 1907 to $120,269,000 in 1951, and total employees from 300 to 8,000. The Montreal sales office which he helped to establish is now a Canadian subsidiary with two large manufacturing plants and net sales in 1951 of approximately $10,000,000 (Canadian).

During World War II Mr. Kerrigan served as chairman of the subcommittee on Medicinal Chemicals of the Government Munitions Board's Chemical Advisory Committee. Last July he received the honorary degree of LL.D. from the National University of Ireland. He is a director of Thomas Leeming & Co., and of Pacquin, Inc.

TB Drug from Citric Acid

SINCE citric acid is a starting material for production of the new tuberculosis drug, isonicotinic acid hydrazide, Chas. Pfizer & Co. has entered the market for this drug. Production of 40 million tablets per month by the end of May is scheduled, with 100 million per month by the end of the year, if demand warrants. Pfizer will market the product in 50 mg. tablets under the name Cotinazin. At the start, Pfizer used coal tar derivatives to produce the drug, but this is only temporary, as a main reason for entering the market is the company's dominant position in citric acid. The use of citric acid as a starting material for the new drug will free the manufacture of this new drug from dependency on the supply of certain coal tar derivatives. The use of citric acid as a starting material is understood to be in use by Hoffmann-La Roche in Switzerland.

Baxter Laboratories Outlook

BAXTER Laboratories in 1952 expects to better "by a considerable margin" their sales volume of $11,073,141 of 1951, William B. Graham, vice-president and manager, recently told the Investment Analysis Club of Chicago. Diversification into a wider range of pharmaceutical specialties and increased demand for parenteral therapy equipment will play a big part in this anticipated growth, he said. Mr. Graham revealed that the company has been working on, and will soon market, a synthetic thyroid. Currently the main products are solutions for parenteral therapy and blood transfusion equipment.

Approximately 90 per cent of all such equipment is made by Baxter and two other firms, Abbott Laboratories and Cutter Laboratories, according to Mr. Graham. He predicted that within the next five years great strides will be made in parenteral therapy. Intravenous feedings are administered in units up to 1,000 calories, but he anticipates that within five years' time doctors will be able to give patients up to 5,000 calories by this method.

In 1952 Baxter will expend approximately $500,000 on research.

Damage from TB Drug Premature Release

THE mischief which has resulted from the dramatic and premature release to the public of partial information concerning the new tuberculosis drug, nicotinic acid hydrazide is becoming apparent on all sides. It now appears that this product is far from being the answer to complete control and irradication of tuberculosis. Rather it is just another drug of importance in the treatment of the disease after it has been contracted and started its damage. It takes its place with streptomycin and para amino salicylate in this respect and might or might not be as important as either or both of these other two drugs. Both streptomycin and PAS were introduced quietly with the information being restricted mainly to the medical profession. Certainly the public was not aroused by front page newspaper stories and a picture magazine article to the point of believing that the answer to tuberculosis had at last been discovered, and that practically all need for tuberculosis sanitoriums and for further research into tuberculosis had vanished.

As a result of this premature and over-dramatized publicity concerning this new drug, Dr. James E. Perkins, managing director of the National Tuberculosis Association, warned last month that the new drug could actually prove "a step backward" if, because of what he called "the premature and irresponsible publicity," funds to fight tuberculosis were cut, the public decreased its support of the Christmas Seal sale, and the drugs were used "indiscriminately on ambulatory patients. This might mean spread of the infection from these patients to others and development of widespread strains of tubercule bacilli resistant to the drugs, he said.

"There is an unjustified decrease in funds for tuberculosis control programs," said Dr. Perkins. The House Appropriations Committee has recommended a reduction of $331,000 in the 1952-53 budget approved by the Bureau of the Budget for tuberculosis control by the U. S. Public Health Service, he said, adding that the only reason given by the committee for the reduction was the publicity about the new drugs. He called this "an unfortunate attitude" and warned against similar attempts to curtail funds in state and local tuberculosis control departments.

At the spring conference of the State Charities Aid Association, held last month in New York, at which Dr. Perkins spoke, Dr. Carl Muschenheim, Associate Professor of Clinical Medicine, New York Hospital-Cornell Medical Center, reviewing the results of the new drug on eighty patients at his and six other hospitals, said: "I think it is evident from the as yet meagre clinical literature and our own limited experience that, though considerable is known, much more is unknown." While there has been improvement "of greater or less degree" in most cases and "clinical relapses have not as yet been observed," he said that "there is nothing in our clinical experience" to preclude the possibility of relapse as a result of the emergence of resistance organisms." Past experience with streptomycin has shown that clinical relapse does not necessarily follow immediately upon the emergence of resistance," he said. The success of the new drug need not "stand or fall" by the outcome of the cases, he added, since they may be used for their immediate effect or in combination with other drugs for long-term treatment. Which prompts us to quote from the release which Squibb rushed out immediately following the premature and over-dramatized press releases. In this release Dr. Geoffrey Rake, director of the Squibb Institute for Medical Research, said:

TB Drug Patent Issued

U. S. PATENT No. 2,596,069, dated May 6, 1952 covering all pharmaceutical and veterinarian applications of Isonicotinic Acid Hydrazide the new antituberculosis drug is assigned to Hoffmann-La Roche, Inc. The application date on the patent is March 17, 1951. The company announces that it has granted a license to E. R. Squibb & Sons, and that the policy has been adopted to grant licenses to other pharmaceutical manufacturers who are interested in the product.

"If Nydrazid (Squibb brand of isonicotinic acid hydrazide) proves as effective as results indicate to date, we may be able to start treatment in the early stages of the disease, when often we do not now dare to act because of deficiencies of present drugs (streptomycin and PAS). In addition, by alternating the three drugs, we may be able to treat patients continuously over far longer periods of time with a vastly greater degree of safety and efficacy."

Looks to us like a proper conservative statement and not one designed to arouse the public and the professions to the belief that a sure cure for tuberculosis has been found.

Dr. J. Burns Amberson, visiting physician in charge of the chest service at Bellevue Hospital, New York, said that the drug might decrease the number of deaths from the disease while increasing the number of chronic cases by prolonging the lives of persons suffering from tuberculosis. This, in turn, might increase the sources of tuberculosis infection, he said, adding that the introduction of new drugs did not diminish the need for increased research and hospital beds for tuberculosis patients.

Toni Expands Research

THE Toni Company has allocated the largest budget in its history to basic hair research in 1952, according to Raymond E. Reed, vice-president in charge of research and development. He said it would be substantially increased over the previous annual budget of $500,000.

The research department of the company is to occupy new modern laboratories in Chicago's Merchandise Mart on June 1. The laboratories will utilize 8,000 square feet of space adjacent to the company's executive offices and will replace one of the company's laboratories which has been located at 330 East Grand Avenue in Chicago. A fifty percent expansion in laboratory space is involved.

According to Mr. Reed, "The new laboratory is unique in design and ideally suited for fundamental and applied cosmetic research. One of its novel features is the elimination of structural partitions. The laboratory facilities are used to demarcate the various areas for the specialized research operations. The laboratory will be air-conditioned and will be equipped with modern research tools, many of which have never before been utilized for cosmetic research . . .

"Our research and medical programs are primarily devoted to producing hair products for Toni that are as soundly researched as any pharmaceutical."

In addition to the chemical, physical, and biological studies on hair and skin carried out in the company's own laboratories in Chicago, St. Paul, Boston, Montreal, and London, Toni has assigned research work to independent laboratories and several leading midwestern universities.

S. R. 401

MARCUS D. KOGEL, M.D.
COMMISSIONER

CITY OF NEW YORK
DEPARTMENT OF HOSPITALS
125 WORTH STREET
NEW YORK 13, N. Y.

April 3, 1952

Mr. Thomas Farrell, Editor
Drug and Cosmetic Industry
101 West 31 Street
New York 1, New York

Dear Mr. Farrell:

Your March issue opens comment on the new anti-tuberculosis drugs with the statement that I am "apparently responsible for the premature release" of the news about the drugs. The word "apparently" was employed, I should imagine, as a libel-prevention device.

Now the truth — if the truth interests you — is that I was not responsible, apparently or otherwise, for the disclosure which you lament in such impressive and ponderous terms. Another fact is that the news of the clinical study at Sea View Hospital was not premature because, as you say, the drugs had been under investigation for a "comparatively short time." The prematurity of the disclosure stemmed entirely from the fact that the Department of Hospitals and the drugs manufacturer, Hoffmann La Roche, had planned to make the announcement at a medical symposium on April 1. There was no question in our minds but that the drugs had shown themselves of sufficient importance to be described to the medical profession and, it follows, the general public. The disclosure in late February was, therefore, premature only in the sense that it broke six weeks before we had scheduled it to be broken. If you know of a single drug or therapy which was completely and exhaustively studied before being announced, I'd appreciate your telling me about it. Further, I wonder if your people really think enough more would have been found out in the six weeks upon which you set such store as to make any significant change in the investigators findings? I can't believe that you do.

Now, as to my "apparent responsibility" for leaking the news break, I freely admit responsibility for having approved the Sea View studies involving some 200 dying patients. And it is true that when these patients began suddenly to feel immeasurably better, they talked about it; their friends and relatives talked about it; nurses, porters, dietitians, hospital attendants, even physicians talked about it. To that extent and to that extent only, I was responsible, I suppose, for the disclosure.

Since the Drug and Cosmetic Industry has, in a back-handed way, done me injury by its unwarranted and unfair inferences, it would seem only fair that it run this letter at the earliest possible date.

Very truly yours,

MARCUS D. KOGEL, M. D.
Commissioner

MDK:SH

More Chlorophyll Sources

THE sharply increasing demand for chlorophyll is resulting in new sources of this chemical to be developed. The American Chlorophyll Company, long the sole source in this country, has now been taken over by Strong, Cobb & Co. This should result in increased activity by this chlorophyll producer, and more intense investigation into the possible uses of chlorophyll and its derivatives should result from the investigations to be conducted by the scientists of Strong, Cobb.

Chlorophyll, Inc. has erected a large plant for production of chlorophyll at Neodesha, Kansas, in the middle of the richest alfalfa country in the world, so in this case, the raw material should be plentiful and right at hand.

This company, originally owned by Archer-Daniels-Midland Company, Rystan Co., and Charles Bowman & Co., is now owned completely by Archer-Daniels, with Charles Bowman & Co. acting as sales agent. Archer-Daniels-Midland Company has also purchased Keystone Chemurgic Corporation, producers of chlorophyll and xanthophyll with a plant at Bethlehem, Pa. R. W. Greeff & Co., have been, and will continue to be sales agents for the output of this plant.

Still another chlorophyll plant is to be erected at Lamar, Colorado, by the National Chlorophyll & Chemical Corp., a new company being formed by the National Alfalfa Dehydrating & Milling Co. According to J. C. Hearn, president of both companies, $1,280,000 is to be raised through a stock offering of both companies. The new chlorophyll plant is to cost in the neighborhood of one million dollars.

Chlorophyll is also being sought in Europe. Chas. L. Huisking & Co. have announced that they are agents in this country for the chlorophyll products of Stafford & Sons, Ltd. of London.

There seems to be no doubt but that demand for chlorophyll will continue to increase as the result of 1. Greater sales of various products already introduced; 2. The entrance of more manufacturers into marketing of products in which chlorophyll is already being used. 3. The introduction of still other products, at present not being marketed, which will result from the intensive research to which chlorophyll is now being subjected.

Bristol Wants Soil Samples

Interesting is the enclosure in the financial report of Bristol-Myers Company of an envelope in which to ship a soil sample to Bristol Laboratories to be screened for a new antibiotic. The postage paid envelope, addressed to Microbiological Research Department, Bristol Laboratories, Inc., Syracuse, N. Y., and containing another envelope in which the soil sample is to be enclosed, contains the following under the heading, Hints on Collecting Soil samples:

"Scientists have found that the soil from such places as gardens, barns, poultry yards, lawns, root cellars or fruit and vegetable storage bins is most likely to yield new strains of bacteria.

"Bristol Laboratories screens thousands of soil samples from all parts of the world in its constant search for new antibiotics—but right in your own back yard, may be a strain of soil microorganisms that can produce a drug as wonderful as streptomycin or penicillin.

"If you would like to contribute to our soil examination program . . . obtain about a teaspoonful of soil, slightly moist but not wet, and free from large stones. Seal it in the inner envelope and write on the outside of it your name and address, and the place that you obtained it, telling the type of ground from which it was taken, and the location. Mail the soil sample to Bristol Laboratories in this envelope."

New York Blue Cross Increase

A NEW high for enrollment was reached in 1951 by the Associated Hospital Service of New York, according to Louis H. Pink, chairman of the board. The increase in the New York Blue Cross Plan during 1951 was 440,842, bringing the total up to 4,923,453 persons. Of the total membership, 3,744,577 persons were enrolled in employed groups and their subscriptions paid through payroll deductions, employer contribution, or collection by a fellow employee, while the remaining number—1,178,876— paid their fees directly to the group.

Persons receiving benefits during 1951 totaled 521,356, and of that number 250,000 had no bill to meet for hospital services. Of those receiving benefits, 476,720 were cared for in member hospitals, and 44,636 in non-member hospitals. A total of $59,616,325 was paid to hospitals for care of Blue Cross members. Less than one per cent of all members hospitalized remained in the hospital beyond the plan's full and part-time benefit period.

Competition with Blue Cross from insurance is increasing, according to Mr. Pink, who says that the Blue Cross gained from such competition since it was "put on its toes" and was impelled to provide wider and more adequate benefits as well as more efficient service.

Fair Trade Legislation

FEDERAL Fair Trade legislation is having a hard time due to the fact that the Bureau of Education on Fair Trade, headed by John W. Dargavel, executive secretary of the National Association of Retail Druggists, and the American Fair Trade Council, headed by John W. Anderson, president, cannot agree on a single bill to be enacted by Congress.

The difference of opinion stems from the question of what Congress will pass in the way of a Fair Trade bill, if, in fact, it will pass any such bill. The McGuire Bill, backed by the Bureau of Education on Fair Trade, is enabling legislation, which it is believed would overcome the weaknesses of the Miller-Tydings Act. On the other hand, the Keogh Bill, backed by the American Fair Trade Council, seeks to establish a Federal Fair Trade policy.

It is believed by most people in this industry, and in many other industries, that the simple enabling legislation, as represented by the McGuire Bill, has the best chance of passage. It is thought that under no circumstances would Congress accept a bill establishing a Federal Fair Trade policy.

However, a real effort was made to compromise these views and arrive at a compromise. It was agreed by the proponents of the McGuire bill that they would accept a Keogh amendment to the McGuire bill if—and only if—it were acceptable to members of the House of Representatives who had taken leadership in supporting the McGuire bill. The amendment was not acceptable to these members who repeated their conviction that Congress would pass a simple enabling act, if it passed any fair trade legislation at all; whereas the proposed amendment, like the original Keogh bill,

was so worded that members of Congress would have reason to believe it amounted to the establishment of a Federal Fair Trade policy. Under these circumstances, the compromise did not become effective.

It is claimed that the McGuire bill is backed by 1,500,000 retailers and thousands of wholesalers—in addition to most, if not all manufacturers in the fields of jewelry, books, tobacco, drugs, hardware, photography, small electrical appliances, automotive parts, men's clothing, groceries, petroleum products, electronic products, as well as small business groups generally.

The difference of opinion between these two groups supporting fair trade legislation as to what form this legislation should take will probably result in confusion in Congress to the end that no such legislation will be enacted.

Huisking on Europe

RETURNING last month from one of his periodic business trips to Europe, in which he visited Germany, Italy, France, and England, Charles L. Huisking expressed himself as being rather pessimistic over the outlook, and the lack of understanding by the American people of what the actual conditions are. He said that there is comparatively little expression of fear of Russia starting a war, but he was disturbed by the increasing reference to our responsibility for the present state of things, as pertaining to Russia, and the fact that what we arranged at Yalta, Teheran, and Potsdam resulted in the strength and power that Russia is today.

Mr. Huisking expressed the belief that the people of Europe must be made to realize that recovery depends largely on themselves, and their willingness to work. He said that thinking people in the various countries have a realization that our relief plan of spending is a deterrent, and also the vast number of government employees we have spread around through Europe constitutes a bad influence.

Increasing import restrictions imposed in various countries are already having an effect on volume, and there is considerable complaint about a falling off in business, stated Mr. Huisking. France recently made these restrictions apply to imports from any other country, making import permits mandatory, and complaint in France and Italy is rather pronounced, he said.

Germany shows unmistakable evidence of steady recovery from the effects of the war, according to Mr. Huisking, and our American manufacturers must be prepared for steadily increasing competition, first to be felt in foreign markets, and with a danger of eventual effect in our own home market.

Chlorophyll Dentifrices

THE marketing of chlorophyll dentifrices is becoming increasingly active as more manufacturers move to offer toothpastes containing this ingredient. With Colgate-Palmolive-Peet Company, Bristol-Myers Company, and Block Drug Company (makers of Amm-i-dent) not only marketing chlorophyll-containing toothpastes, but also suing for a declaratory judgment to void the Rystan patent on the use of chlorophyll, the situation is rapidly reaching a point of confusion.

Furthermore, Pepsodent is reported to have given up the exclusive angle of its license under the Rystan patent for a monetary consideration. Pepsodent's license to use chlorophyll in a toothpaste was formerly exclusive until July 1, 1952. Now Rystan can negotiate with those who are claimed to be infringing, including those who are suing to invalidate the patent, in an effort to arrive at licensing agreements.

The Block Drug Company announces that it is now spending $2 million in a two-month national advertising campaign to introduce its ammoniated dentifrice combined with chlorophyll. This product, which adds the odor neutralizing qualities of chlorophyll to the anti-decay properties of Amm-i-dent, leading ammoniated toothpaste, is the only chlorophyll dentifrice guaranteed not to stain toothbrushes or clothes, according to President Melvin A. Block. The price of this product is the same as for plain Amm-i-dent, 53 cents. Block has tested the new product in Columbus, Providence, and Rochester.

Others marketing, test-marketing, or preparing to market chlorophyll toothpastes, beside Colgate and Block include Bristol-Myers with Ipana Ammoniated toothpaste Plus Chlorophyll, Whitehall Pharmacal with Kolynos with Chlorophyll, Iodent Chemical Co. with Chloro Plus A, Purepac Corp. with Chloromint. Competition in test areas has been at fever temperature with most companies using local newspapers and other media heavily, and on occasions using lower prices and coupons as buying inducements.

With all manner of firms jumping into the chlorophyll field, Rystan is faced with a serious problem of prosecution of all unlicensed users to defend its patent. Not only are the number of manufacturers of a single type of product, such as toothpaste, multiplying rapidly, but the number of products in which chlorophyll is being introduced is also by leaps and bounds.

With Warren-Teed, against whom Rystan upheld their patent in a Texas Federal Court, now under license, there are only four licensees. The others are Pepsodent, Pharmacraft for Oteen Mouthwash, and Americaine Co. for a line of ethical products.

SKF Recalls Feojectin

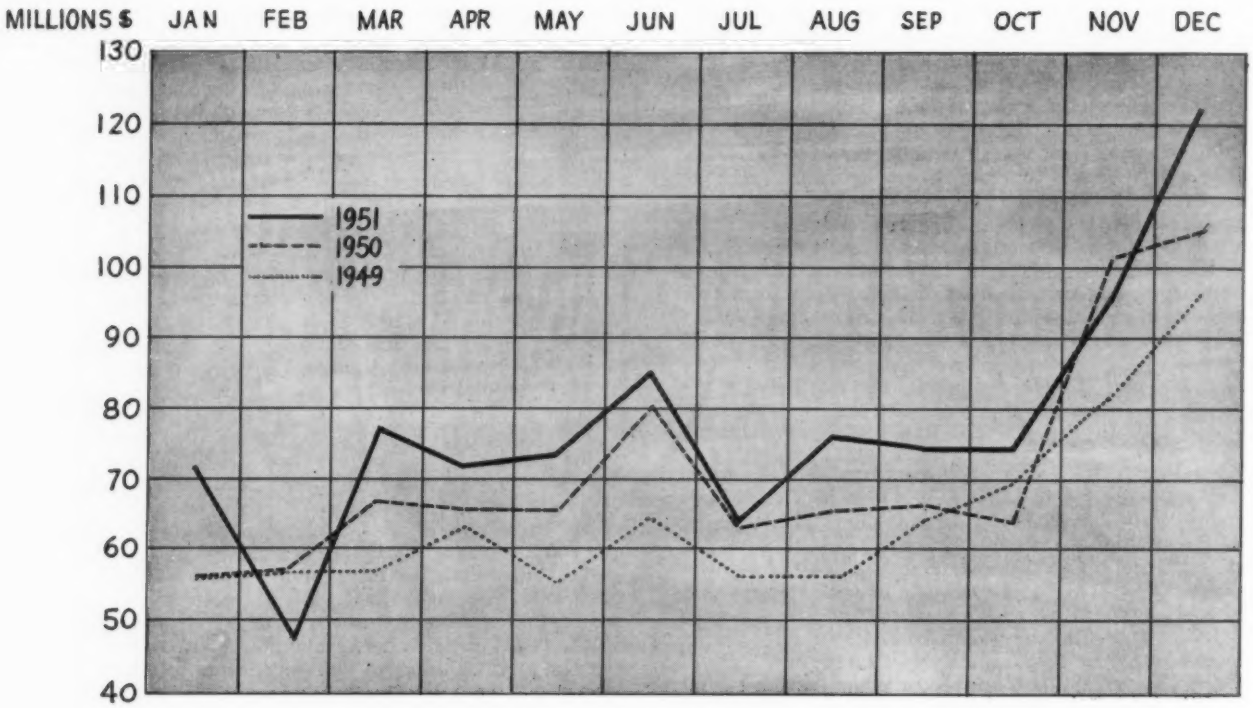
ALTHOUGH there had been no reports of harm being done in the use of Feojectin ampuls, Smith, Kline & French Laboratories decided last month to recall all stocks of the product from the market because it was discovered that some of the ampuls contained a precipitate. These particular ampuls had been in storage for three years. Airmail-special delivery letters were immediately sent out to all drug wholesalers and hospitals soliciting their cooperation in returning all Feojectin stock to the company.

The product, while having a limited sale, had been on the market for three years. Tests are being conducted to determine the cause of the precipitate.

No Fair Trade by Invoice Legend

THE enforcement of fair trade prices through the use of an invoice legend by a wholesaler has been declared invalid by the New Jersey Superior Court which declared that fair trade minimum price maintenance is illegal in the absence of "signed contracts." Johnson & Johnson and McKesson & Robbins have filed for appeal from this decision which was handed down last month.

The case was brought by Johnson & Johnson and McKesson & Robbins against Charmley Drug Co., Newark, N. J., in which a fair trade agreement was set forth in the invoice for the goods. The suit asked for a declaratory judgment affirming the validity of the invoice legend as a legal fair trade contract binding on the retailer.



CONSUMER EXPENDITURES FOR COSMETICS, TAX EXCLUDED, 1949-1951

Cosmetic Sales Record

COSMETIC sales for 1951 reached a new high of $934,065,034 at consumer levels. This compares with $864,459,655 for 1950, and $773,433,562 for 1949. But while the dollar volume of all perfumes, toilet waters, colognes, and cosmetics has again risen as a whole, there have been various changes in the positions of several different types of products. Also from an examination of the record, and particularly from an examination of the monthly sales of recent years, it is evident that the buying splurge which resulted from our entry into Korea in June 1950, had its effect upon sales of cosmetics as well as upon other things of a more durable nature. The fact that cosmetics are still luxuries in the minds of many people having to do with control over supplies of raw materials and packaging materials, apparently led many women to assure themselves of far more than normal supplies of the fragrance products and cosmetics which they like.

As an example of this sort of buying we find consumer sales in January 1951 at a surprisingly high level. And while there was a sharp recession from this high point for February 1951, the ensuing months more or less follow the pattern of the other two years, although the figures for each month, with two exceptions, are materially higher. The two exceptions are July, which failed to record much of an increase, and November, which actually declined.

The increase in cosmetic sales over recent years is mainly due to the upsurge in demand for hair preparations sparked by the home permanent wave, the hair conditioning shampoos, home hair dyes, and other greatly improved hair preparations. The increase in consumer buying resulting from these preparations is estimated at upwards of $100 million. It was the addition of this new business that was mainly responsible for cosmetic sales as a whole registering an increase during the past few years. If the developments in hair preparations had not taken place the story of cosmetic sales for the past few years would have been a rather

dismal tale which everyone would have blamed mainly on the cosmetic tax.

As regards other cosmetics it appears that there has been a decrease in the use of creams, although it would seem that the tendency in this direction is offset to a marked extent by the far greater distribution of massed-produced products existent today. The increased availability of these preparations to women through variety stores, super-markets, independent grocery stores, and similar outlets, would lead to the firm belief that the unit sales of these products are steadily increasing, although the sales in dollars are not following suit because of the lower prices paid for these units of mass-produced and mass-distributed cosmetics.

Lipsticks, nail polishes, deodorants, face powders, talcum and body powders, are all similarly affected by this mass distribution of mass-produced cosmetics. Also the new hair preparations previously referred to are moving through these recently developed merchandising channels in very large volume. Grocery distribution has been in the open during the last few years and some cosmetic manufacturers have even gone so far as to employ food brokers to distribute their preparations to these outlets.

The market for fragrance preparations, that is for perfumes, toilet waters, and colognes, is operating in a similar manner. That is, although the total dollar volume for fragrance is slightly higher than it was, far greater amounts are being bought at lower unit prices. There has been a tendency on the part of women to reduce fragrance costs by using the colognes, toilet waters, and stick colognes, which naturally are lower in price than the straight perfumes. And the relatively lower cost of these preparations, compared with perfumes, tends to cause women to use these products more freely. Thus, the point is being reached at which women generally will tend to use fragrance preparations at all times, rather than only for special occasions. This trend should cause the sale of fragrance products to show a slight but steady increase over successive years.

What lies ahead for the cosmetic business is difficult to say as it is generally being pointed out that 1951 appears to have been a peak year, and if business generally can duplicate it in 1952, it will be doing as well as anyone can hope for. Also in the face of the fact that the cosmetic industry apparently benefitted in 1951 from the scare-buying resulting from our entry into Korea and the arms program following this engagement, it might well be that a recession in cosmetic sales volume could be registered for 1952. However, it might well be that the forces at work during the past years might still be sufficiently potent to cause the year 1952 to register still another new high for cosmetic sales.

Then there is the possibility that more new developments in cosmetics of one type or another might cause women, or men, or both to take a new interest in cosmetic products. It was this interest on the part of women which caused the great increase in sales of hair preparations. When manufacturers create new types of products which easily accomplish for women far more desirable effects than were possible with the products previously available, the favorable reaction of the women of the country is instantaneous.

An increase in interest in cosmetics can also be created by widespread advertising to create a new type of product, even though the claims may eventually be proven not to be quite justified. This was the case with the ammoniated dentifrices, and at the moment it is the case with the chlorophyll dentifrices. Although it might seem that such competition merely causes consumers to buy one make of toothpaste instead of another, with sales remaining practically static, such is not actually the case. Widespread promotion of products of this type causes greatly increased interest of the public in the type of product being promoted. Consequently many more people become aware of the propriety of using such products. Also the promise of greater efficacy and prevention of dental disorders in the case of promotion of a toothpaste, impresses on many people the fact that they should cease to neglect to use a dentifrice at all times. The result of all this is that sales of all dentifrices increase to the benefit of the manufacturers and to the public as well.

There is no accurate way of telling just how many new cosmetics showing marked improvement over existing ones will be successfully introduced during this year or next. But based on past performances, and particularly the activities of the past few years, there should be several new types of cosmetics which should advantageously affect the market for cosmetics in this country.

COSMETIC SALES

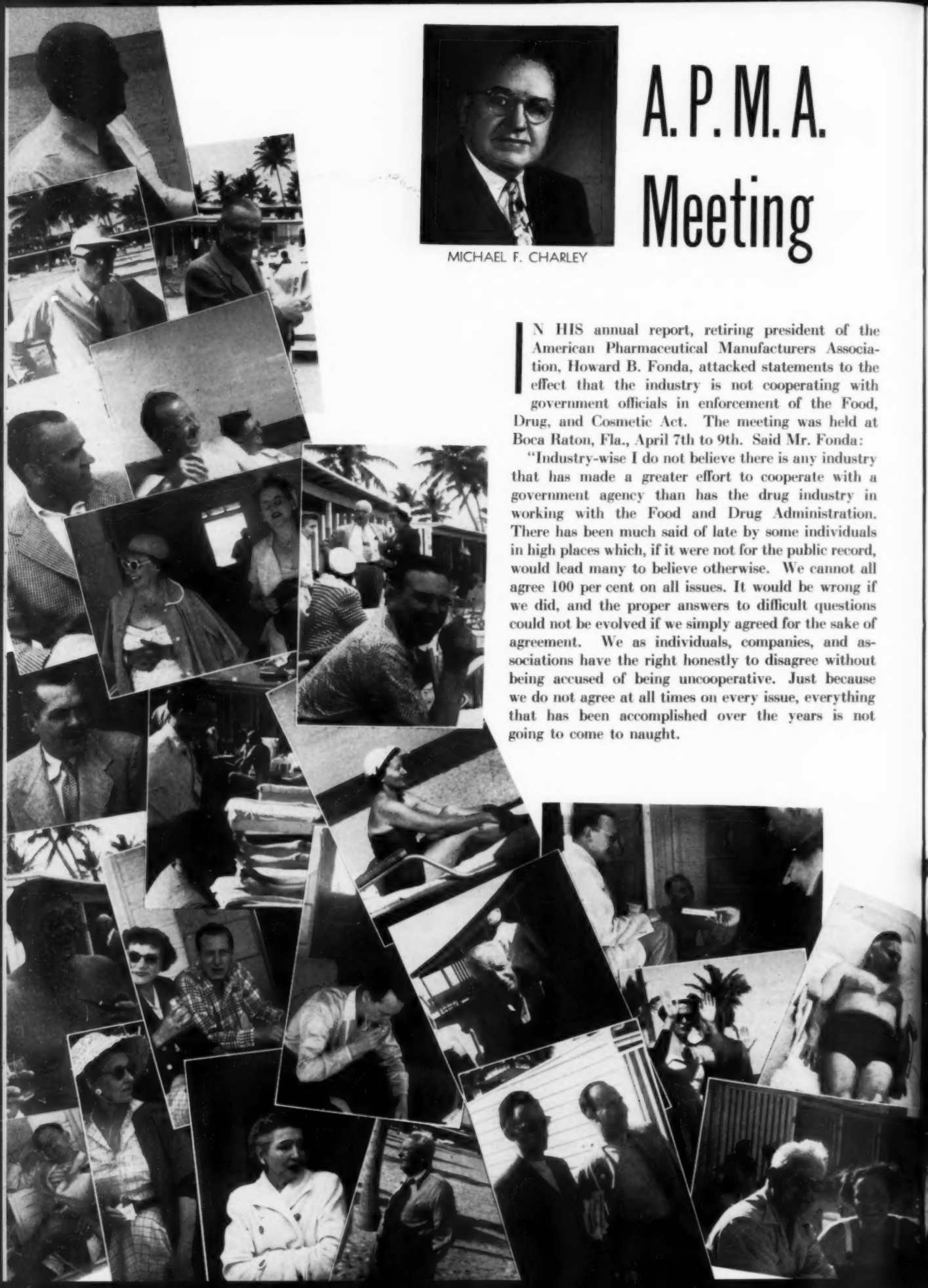
	1951	1950	1949
Jan.	70,836,823	56,531,821	56,408,311
Feb.	47,794,688	51,976,330	57,384,937
March	77,135,726	68,031,042	57,961,602
April	71,564,883	66,534,967	63,291,243
May	73,880,881	66,190,848	56,248,121
June	85,097,468	80,272,080	64,799,943
July	63,800,488	62,602,508	56,933,402
Aug.	77,737,235	65,572,615	56,111,395
Sept.	74,006,850	67,641,770	64,231,866
Oct.	74,486,242	64,583,064	60,689,658
Nov.	95,847,180	101,719,521	81,639,232
Dec.	121,876,570	106,803,089	96,733,852
Total	934,065,034	864,459,655	773,433,562

MICHAEL F. CHARLEY

A.P.M.A. Meeting

IN HIS annual report, retiring president of the American Pharmaceutical Manufacturers Association, Howard B. Fonda, attacked statements to the effect that the industry is not cooperating with government officials in enforcement of the Food, Drug, and Cosmetic Act. The meeting was held at Boca Raton, Fla., April 7th to 9th. Said Mr. Fonda:

"Industry-wise I do not believe there is any industry that has made a greater effort to cooperate with a government agency than has the drug industry in working with the Food and Drug Administration. There has been much said of late by some individuals in high places which, if it were not for the public record, would lead many to believe otherwise. We cannot all agree 100 per cent on all issues. It would be wrong if we did, and the proper answers to difficult questions could not be evolved if we simply agreed for the sake of agreement. We as individuals, companies, and associations have the right honestly to disagree without being accused of being uncooperative. Just because we do not agree at all times on every issue, everything that has been accomplished over the years is not going to come to naught.



"With reference to the Durham-Humphrey Bill, we as an industry were asked by the Food and Drug Administration to cooperate in working out certain problems. We did and because our ideas were opposed to those of certain individuals we were told that we were uncooperative, did not have the public's interest at heart, and were causing irreparable damage that will take years to correct. I ran across something the other day called 'The Bureaucrat's Dictionary.' In it I found this statement. 'Give us the benefit of your cooperation and present thinking.' For which this definition was given: 'We'll listen to what you have to say as long as it doesn't interfere with what we've already decided to do.' To me this pretty well sums up the attitude of some individuals in the government who are supposed to be opened minded and unbiased. I say that it is time this type of thinking should change and that we get back to the days where we recognize each other's position without a predetermined opinion so that fair and just conclusions can be reached."

A stern warning that markets for American medicinal markets abroad are being endangered by developments in other countries of the world was voiced by Dr. William H. McLean, vice-president in charge of marketing for Merck & Co. According to Dr. McLean nationalism is on the increase, rather than on the wane. Especially in the health field are the peoples and governments of many countries attracted to independence in supplies of drugs and chemicals. Said Dr. McLean:

"The growth of antibiotic facilities is perhaps the most dramatic with England, France, Italy, Spain, Germany, Scandinavia, and Japan, which nations are either currently self-sufficient or nearly so, and much of this came to fruition just within the past few months. Japan with all its postwar problems and military occupation is now reported to be the third largest

(Continued on page 693)

COURTESY HELENA RUBINSTEIN

by Harry Hilfer

Antiperspirants

ANTIPERSPIRANTS and deodorant preparations have become one of the foremost cosmetic preparations from the standpoint of sales, and the market seems to be growing increasingly larger. Contrary to general expectations new preparations from the standpoint of methods of application seem to be readily absorbed by the market, but without seriously causing dislocations in the established preparations—an indication that novel approaches are welcomed, but that present brands keep their satisfied customers.

In tracing their development it should be borne in mind that antiperspirant effects are not synonymous with deodorant effects. It is perfectly possible to formulate products which would have good deodorant properties but which are not antiperspirants. A distinction will therefore be made between the antiperspirant and the deodorant. The deodorant usually has incorporated a germicide or bacteriostatic agency whose application inactivates the skin flora in the area of application and therefore prevents the degradation of the perspiration into the unpleasant smelling compounds associated with perspiration. It has been proven that perspiration is normally free of odor until these organisms start feeding on it. This method has been a highly successful one for those people who do not perspire excessively. Indeed these fortunate individuals have difficulty in understanding the differences in functions between the deodorant and the antiperspirant. In this classification there are a number of preparations marketed—classified as deodorants and deodorant colognes—whose sole function is to prevent odor development and not to prevent perspiration.

The early preparations of this type used a great variety of different bacteriostatic materials including among others, boric acid, hexamethylene tetramine, zinc peroxide and hydroxy benzoate esters, incorporated into a cream or in a non-aqueous vehicle. Replacements have been gradually made with newer synthetic materials which have been developed and marketed over

and Deodorants

the past ten years. Notable among these has been the so-called hexachlorophene used in conjunction with a soap—where a marked reduction in the skin flora was demonstrated. This same compound has also been introduced in vehicles other than soap as a deodorant.

Quaternary ammonium compounds also are finding greater usage in this category because of their extremely high phenol coefficients coupled with a relatively low irritational index. In their usage, however, the formulation should be tested for possible incompatabilities due to the possible presence of an anionic-active compound which could inactivate the cation-active quaternary.

Organic mercurials have also been offered for this use but so far have not been appearing on the market to any great extent.

These bacteriostatic agencies could be incorporated into all types of vehicles, such as water-alcohol solutions, as deodorant colognes, or creams. Due cognizance should be taken of the peculiarities of the substances used, however.

Antiperspirants have appeared in even greater profusion but these have almost entirely been aluminum salts. Generally speaking the most effective is thought to be aluminum chloride because of the greater degree of ionization in such a solution system. This compound however is relatively quite irritating and because of the low pH of its solutions is harsh on fabrics which may come in contact with it. Aluminum sulfate, though not as active as antiperspirant is therefore more generally used. The aluminum ion is an effective protein coagulant and its antiperspirant function stems from its ability to block the "sweat" glands because of this effect. This blocking helps to check the flow of the perspiration. Among the first preparations used were the relatively highly concentrated aluminum chloride solutions of the National Formulary, but the tendency has been to get away from such drastic treatment. Recent innovations have been aluminum salts, to which have been added different types of agencies designed to lower fabric damage and skin irritation. Possibly the best known of these so called "buffers" has been urea, which on heating releases ammonia and therefore effectively prevents acids formed on hydrolysis to exert any effect on the fabric. This substance is especially useful if the fabric is subjected to ironing without previously having been washed.

Attempts at further introduction of buffered aluminum salts have included basic aluminum salts. Patents have been issued covering the use of the aluminum basic sulfate and the basic formate. More recently there has appeared an aluminum hydroxy chloride complex which has become quite popular, and the patent literature lists an aluminum glycinate (amino acetate). There has also appeared on the market an antiperspirant whose active ingredient is aluminum sulfamate (Amino sulfate). All these substances indicate a trend towards the reduction of fabric damage and irritation by raising the pH of the solution. As previously indicated, however, the degree of ionization of the Al ion seems to be an important consideration. Certainly the aluminum chloride exerts a greater effect than does aluminum acetate when compared mole for mole, and I believe that this factor should be considered in the evaluation of the effective agencies. Actually the active agencies mentioned two different methods of arriving at the same result. The hydroxy or basic salts

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COURTESY HELENA RUBINSTEIN

COURTESY DOROTHY GRAY

The Pharmaceutical Future

THE wide spread of diseases for which effective therapeutic agents have not as yet been discovered is clearly indicated by the almost daily reports of the clinical results obtained with new products tried in many different diseases, and also by the continuous stream of new products constantly being developed by pharmaceutical manufacturers. And the interest in these discoveries, and the importance of them to the public at large is well illustrated by the fact that such announcements are preferred copy to most newspaper editors, and on very many occasions are given front page positions. Naturally this public interest is heightened by the prevalence and seriousness of the disease for which effective treatment is predicted. In the very serious diseases, interest is quite general even though a person may not himself be a sufferer, or even know a person who is a sufferer from the disease in question.

Some of the comparatively uncontrollable diseases affect practically the entire population at one time or another. A typical illustration of this is the common cold. One has only to recall the furor which was aroused about two and a half years ago when antihistaminics were first offered over-the-counter for alleviating this condition. Introduced in the middle of the cold season, manufacturers were swamped with orders and were in a quandary as to where to obtain adequate supplies of the drugs and of packages and packaging materials.

The terrific pressure to obtain penicillin when it was in short supply during the war should not be forgotten. Neither should one forget the pressure caused by the short supplies of aureomycin during the early days of that drug, nor the black market operations said to have existed in cortisone. These things stress the public reaction to new drugs for which unusual results are promised.

While most important strides have been made with the sulfa drugs and the antibiotics in the control of infectious diseases, control in this field is far from complete. For this reason the search for antibiotics continues relentlessly in the laboratories of many manufacturers. The hope persists that the virus diseases, including poliomyelitis, might be completely controlled through such a product. The antibiotic enthusiasts acknowledge no limits to what these products can accomplish.

But quite aside from the research to develop new drugs, but closely associated with it, is the intense research conducted to develop methods of production once a drug has been discovered. A drug which is not subject to use patent immediately becomes competitive solely because of the method of production since this influences the cost. The sharp price reductions over the years in the price of penicillin have mainly resulted from lowering the cost of production. Perhaps the last sharp cuts in the prices of penicillin preparations

went further than was indicated by lower production costs, but certain makers are now, or will soon be, in a position to make a profit at these levels, so there these prices will stay with the high cost producers faced with continuing losses, or with being frozen out.

Research into cortisone production is continuing with great intensity in many pharmaceutical research laboratories. Evidently this product—well proven clinically and with a very high potential—is also to be another drug in which competition is to be mainly of production-cost nature. Therefore, the most important thing in cortisone today—if one would stay in the market—is to have a low-cost production method based on cheap, freely available raw materials. When competition in a pharmaceutical is on the production-cost level, competition becomes more intense and more devastating than if competition is merely on a distribution and marketing level. For a competitive price below the cost of other makers leaves the high-cost makers very little alternative other than to quit the market for the product. Furthermore, in this type of competition, a pharmaceutical manufacturer has no way of telling where new competition is coming from. Therefore, there should be no such thing as complacency in the pharmaceutical industry.

No longer can a manufacturer sit back with an exclusive item and believe that he is assured of a continued market for his product until his patent expires, since new and better products are apt to be introduced at any moment. And neither can a manufacturer sit back and believe that he has solved the problem of production for a product on which he is enjoying an excellent demand. For other manufacturers will turn up with different methods of producing the same product at sharply lower costs, causing the first producer to be priced out of the market. It is up to manufacturers of exclusive products to be constantly searching for other products which will prove more efficacious in the treatment of the diseases for which his specialties are used, and also to be constantly working to develop cheaper production methods for both his exclusive products and his products which are made by others. Only in this way can a manufacturer be certain that he will not be forced out of business.

Although the startling developments in the pharmaceutical industry during recent years might appear to have narrowed the field in which new drugs are required, one does not have to look very far to realize that many diseases still cause untold suffering and much disablement. In fact, one has only to remember the great prevalence of respiratory diseases during the past winter to appreciate the fact that this single disease is far from being under control. Even though its acuteness and much of the suffering from it was relieved by sulfa drugs and antibiotics, its weakening effect and the likelihood of relapse were widespread. Much remains to be done in control in this one single class of infectious diseases and none of the so-called miracle drugs thus far discovered is equal to the job.

Beside this condition we always have the common cold. Also we still have many cases of arthritis, gout, and various similar afflictions for which cortisone and ACTH and similar drugs do not appear to be the answer. Much remains to be accomplished in control of this category of diseases. Remember the high public demand for the aspirin, calcium succinate combinations which promised relief from the pains of arthritis and similar ills? This gives some indication that there is a real need for products for these ailments which will really do the job.

Furthermore, the liver, the kidneys, and the circulatory system are still in need of products which will supply adequate and efficacious treatment of disorders. Once any of these really kick up treatment is long and uncertain. It is true that research is advancing therapy far ahead of where it once was, but what has been accomplished is extremely small in comparison with what remains to be done.

Also the problem of tuberculosis is still with us, and the recently announced isonicotine acid hydrazide has done nothing to change this picture. Even if this drug accomplishes what is now predicted for it, it will merely prolong the lives of those suffering from tuberculosis. This will mean that there will be more chronic cases than ever before, with the result that more hospital beds, rather than less, will be needed as the result of the discovery of this new drug. This drug apparently is a

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Poison Ivy

BY MILTON A. LESSER

MANY a country vacation has been ruined and the fun of numerous camping trips has been spoiled because people forgot the old American adage—"Leaves three, let it be." With springtime and warm weather, comes exposure to poison ivy, poison oak and poison sumac. Following contact with these plants or their poison comes the painful inflammation characteristic of this type of dermatitis venenata.

According to Downing,[1] the most frequent cause of dermatitis venenata or contact dermatitis is contact with poisonous plants. The economic possibilities of a useful medication for treating this condition, says he, are unlimited. Although many varieties of plants are capable of causing dermatitis, in this country the poison ivy or Rhus group probably accounts for many more cases of dermatitis than all the other plants together.[2] This is reflected in estimates[3] that there are about 350,000 cases of Rhus poisoning each year. They cause about 600,000 days of lost time and require some 465,000 medical visits.

In scientific terminology, poison ivy, poison oak and poison sumac are known, respectively, as *Rhus toxicodendron, Rhus diversiloba and Rhus venenata.* It is believed[4] that poison ivy and poison oak are probably the same plant grown in different climates, but poison sumac is a distinct species. Poison ivy flourishes both in the woods and in the open and it is especially abundant along fence rows, stone walls, paths and roadways. It often climbs posts and trees.[5]

One or more kinds of poison ivy occur in abundance in almost every part of the country. It ranges from Canada south to Florida, westward until it meets the deserts of the Southwest, and northwestward to Puget Sound. There its range overlaps that of the Pacific coast species, which is poison oak. The third member of the group, poison sumac, is of more limited distribution, being found chiefly east of the Mississippi River, usually in swampy regions.[6,7]

The sap of all three plants contains a nonvolatile phenolic oil called urushiol. This material will sensitize most people coming in contact with it, and it is respon-

sible for the unpleasant symptoms associated with Rhus dermatitis. In tests on adults, 60 to 80 per cent gave positive reactions to the oil[8]. Moreover, only minute quantities are needed to produce the irritant effects, and poisoning can occur by indirect as well as direct contact.

Thus, as noted by Stevens,[9] as little as 0.001 mg. of urushiol will cause dermatitis in very sensitive people. This helps to explain why enough oil can be carried on soot particles in the smoke from burning plants to cause dermatitis in sensitive individuals. The poison is also transmitted indirectly by cats, dogs, horses and other animals that walk over or through the plants. Contaminated clothing, tools and other objects may also act as conveyors for the irritant.

In studies on the chemistry of poison ivy allergens, Mason[10] prepared a pure, crystalline substance, 3-n-pentadecylcatechol. This substance is so powerful that it is capable of producing the typical poison ivy eruptions in amounts as small as one millionth of a gram per square centimeter of sensitive skin.[11]

As remarked by Craig,[12] only persons who have been exposed and have become sensitive to urishiol suffer from ivy dermatitis. About 75 per cent of adequately exposed people become sensitized. After a first exposure, symptoms of the dermatitis are not evident before four to twenty days, usually six to twelve, irrespective of the size of the inoculum. Once sensitization has occurred, however, the incubation period after exposure is shortened to 24 to 48 hours. As with other allergic reactions, it is recognized[13] that the sensitivity varies among different individuals and in the same individual at different times.

Rhus dermatitis is essentially an acute or subactute form of contact dermatitis or contact eczema. All degrees of inflammation may be present. Most victims first show erythema that is limited to the area of contact. Later, edema, papules, vesicles, and pustules may appear. Itching or burning, or both, are common and pronounced symptoms in the various stages of the dermatitis.[14] The attacks usually last from two to three weeks, during which time the patches become crusted and dry. Repeated attacks do not confer any lasting immunity[8].

In studies on over 100 cases of severe poison oak dermatitis, Templeton and his colleagues[15] found that very little systemic reaction takes place. About four-fifths of the patients reacted with slight fever. About half had a mild leukocytosis and about half showed a moderate eosinophilia. The urine was normal in all cases. However, the lesions may become secondarily infected and the condition may thus be complicated by fever, chills, malaise, lymphangitis, lymphadenitis, or even bacteremia.[14]

In considering the various concepts and developments concerning poison ivy and allied conditions, Prokesch[16] feels that Rhus dermatitis fits into a broad general picture in which many immunological, allergic and biochemical factors play an important part. In his opinion, more successful methods of prevention and treatment may follow a more thorough understanding of these factors.

As stressed by Goldman[17], the real problem in the control of poison ivy is prevention. Such prevention, says he, is entirely practicable and may be considered logically in the following phases: (a) Removal of the plant, (b) Prevention of contact with the plant, (c) Attempts to render the individual less susceptible to contacts, and (d) Removal of plant material from cutaneous surfaces after contact. Of course, this last phase could also be considered the first step in actual treatment of the dermatitis.

According to Government experts[8], the most effective method of prevention is to eradicate the plants. Destruction of the noxious growths is now quite feasible and is readily accomplished through the use of modern herbicides.[3,18] These include ammonium sulfamate, 2, 4-dechlorophenoxyacetic acid, commonly known as 2, 4-D, and the closely related compound, 2, 4, 5-trichlorophenoxyacetic acid, generally referred to as 2, 4, 5-T.

Recognition and avoidance of the plant is also of major importance in preventing Rhus dermatitis. Since avoidance of contact is not always possible, protective measures may be necessary. The simplest type of protection is through the use of proper clothing. However, it must not be forgotten that these protective garments, especially shoes, may become contaminated and thus serve as a means for transmitting the irritant.

A more convenient type of protection is provided in the form of protective creams or special solution for application to the skin prior to possible exposure. For example, Crooks and Kephart[6] point out that various preparations containing ferric chloride and glycerine have been used more or less effectively as preventive measures. Noting that there may be some danger of skin pigmentation from the iron salt, they cite the following as a common formula:

Ferric chloride	**5 parts**
Glycerine	**25 "**
Alcohol	**25 "**
Water	**50 "**

During recent years, investigators have studied the possibilities of chemical protection against poison ivy through the use of oxidizing agents. Schwartz and his colleagues[19] employed sodium perborate for this purpose. They reported on its effective use when employed fresh in an ointment like the following:

Cetyl alcohol	**35.1 per cent**
Stearyl alcohol	**5.3 " "**
Ceresin	**3.5 " "**
Castor oil	**20.8 " "**
Mineral oil	**21.9 " "**
Wetting agent (Duponol WA pure)	**1.7 " "**
Sodium perborate	**10.0 " "**
Boric acid	**1.7 " "**

However, experiments by other workers[20] failed to

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DONALD S. GILMORE, President of the Upjohn Company, Elected ADMA President

A.D.M.A. Meeting

SAID retiring president Carleton H. Palmer at the Annual Meeting of the American Drug Manufacturers Association:

"This 40th Annual Meeting of our Association marks a year of extraordinary progress and achievement. The public is so eager to catch the latest advance in medicine and in the reduction of the cost of medical care that reporters the world over are seldom willing to wait for publication of such news in scientific journals," "In their eagerness they occasionally ferret out information that may be incomplete, too hopeful, even misleading. Dazzled by a succession of so-called "wonder drugs," the world expects the daily newspaper to publish accounts of the latest scientific accomplishment, the most recent report of a scientist or research team, and to record each millimeter of progress.

"The role of sidewalk superintendent is no longer confined to the building industry. We in the Drug Field have around us a fascinated group of spectators peering over our shoulders, watching and appraising our productivity and measuring our rate of progress. And we are just as eager as they are to accelerate progress in the easing of pain, the conquering of disease, and the lengthening of lives.

"In his 30th year of service to the Association, our Executive Vice President, Carson Frailey, has lived a generation of devotion to the aims, accomplishments and ideals of the A.D.M.A. Carson has, over the years, joined with us in our special achievements at the launching of new ventures, at the dedication of research facilities and laboratories. To us, individually, these may have been milestones. Taken together, they must have seemed to him like a picket fence.

"At the recent meeting of the American Academy of General Practice in Atlantic City, Dr. Jason P. Sanders, retiring president, said that he looked ahead to progress in medicine within the next half-century not even dreamed of at present. He gave much credit for what has been accomplished to our fine American pharmaceutical houses, working in private enterprise. They have provided us with drugs standardized to a degree that our fathers would not have thought possible."

These medicinal products accounted for 21 cents of the total dollar cost of medical care in 1940. In 1943, they reached a peak of 23½ cents, and have been dropping steadily to a low of 17.2 cents for 1950.

The cost of drugs used in treating patients must not be confused with the total cost of medical care. Total medical care including drugs is only 4 cents out of the consumer's total income dollar. And only 17 per cent of this 4 cents, or roughly two-thirds of a cent, is for drugs.

"We can take pride in the growth of our industries and their contribution to our economy. On the other hand our greatest economic satisfactions must come from the extent to which we can lower the total cost of medical care; by new research, mass production, and efficient distribution, so that we can repeat the now familiar example of actual reduction in the cost of medication to the patient, under the direct force of lower costs of production and of the rough and tumble of enterprising competition.

"But in reducing costs we must never forget that constant research and funds therefore, including a high depreciation charge, must be maintained as indispensable factors to the life of a business. In this modern age new discoveries in medicine are often obsolete before normal depreciation can retire the investment necessary for their production.

"Another incentive in the reduction of the cost of medical care is that of making treatment available at home, or at the physician's office, or in out-patient clinics, days, if not weeks, before a patient would normally have been discharged from the hospital. We have long appreciated the special values in Insulin that permit the diabetic to live his usual life. The antibiotics have shortened hospital care by days and weeks. New antitubercular drugs promise a bright future in the same direction. Our targets in research are new medicinal agents to conquer disease, to reduce the cost of medical care, and to provide more time for the physician and the hospital to treat those who are seriously ill."

Executive vice-president Carson P. Frailey, retiring after thirty years of service to the Association, expressed the thought:

"That times, attitudes and thinking have changed since 1923 no one can gainsay. But the great organization which it has been my privilege to help develop with your constant support and encouragement is still basically the same. I trust it will always be an instrumentality which endeavors to separate the wheat of fact and information from the chaff of all that you see and hear and distribute it for immediate consumption or store it up for future scientific or industrial nutriment. That was the definition included in my annual report for 1939 and continues to be my view of the Association's purpose."

Dr. Karl Bambach, Assistant Executive vice-president, said that:

"After one year of increasing controls, we find that the supply picture has changed greatly. Slowly, perhaps reluctantly, controls over materials are being relaxed. The National Production Authority has recently announced that structural steel allotments for the third quarter will be doubled. As the apparent reason for governmental interference with normal business operations diminishes, the resultant controls tend to recede.

"Not so with the basic philosophy, however. That is still with us. The reluctance of the President to invoke the proper provisions of the Taft-Hartley Law in the steel situation, and his unprecedented action in seizing the steel plants without specific statutory authority, have been widely criticized. The criticism has been based on the feeling that policy makers in the administration think first of governmental action whenever difficulties arise in industry."

"Under the auspices of the Association," continued Dr. Bambach, some of the member firms are now supporting two research projects. The projects, if successful, are of such a nature that they cannot result in monetary gain for any individual firm, or for any group. Instead, they are programs of general medical importance, intended to further the public health and welfare.

"The first research project, from the chronological standpoint, is directed toward the development of an electronic machine to inspect ampuls for undissolved particles. The research has been conducted by the RCA Victor Division, and was started about seven years ago. While this is not a new subject, it is worthwhile to repeat that the member firms which have financed this development will receive no return for their investment, except for the benefit which will accrue to the entire medical field and to the public. The machines they will purchase in future years for their factories will cost just as much as those purchased by other companies which have not supported the basic research. It is my intention instead to emphasize the principle behind this work, which is to develop and contribute to the entire industry a new method of improving the quality and safety of injectable products.

"The same principle applies to the other research project, which is sponsored by the Medical Section, and financed by contributions from certain member firms. It is a study of the production of agranulocytosis in animals. After we learn more about this baffling medical condition, it is possible that a method of evaluating the tendency of new drugs to cause agranu-

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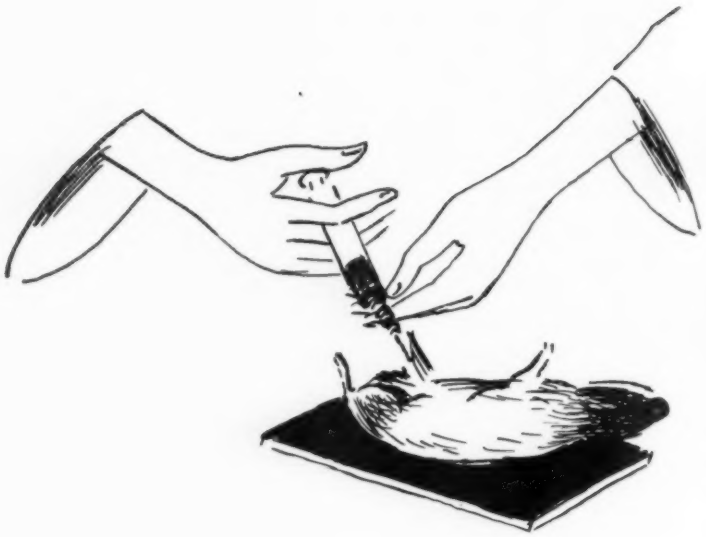
CARSON P. FRAILEY, retired as executive vice-president after 30 years of service



New Drugs and Toxicity

by Raymond M. Rice, M.D.
MEDICAL DIRECTOR, ELI LILLY & COMPANY

In his report as chairman of the Medical Section of the American Drug Manufacturers Association, Dr. Rice gave this most interesting discussion of the problem of toxicity and unwanted side-effects which faces those who are seeking to produce the new drugs which are steadily bringing about control of an increasing number of diseases.

ONE of the main problems which concerns the Medical Section at this time is that of drug toxicity. As research in our industry has offered its great contributions of the past quarter century, it has made more and more complicated the work of the pharmacologist and the clinical investigator. In our efforts to find and develop new and more potent therapeutic agents, we are presented with a succession of increasingly difficult questions concerning the unwanted and undesirable effects of drugs. Better therapy, almost without exception, seems to be based on use of agents with more profound pharmacological action, and this greater systemic effect usually is accompanied by increased potentiality for toxic reaction.

Twenty-five or thirty years ago the physician had few occasions to worry about drug toxicity. There were some bad actors in his therapeutic armamentarium but their toxic behavior was well known and, in some cases, symptoms of overdosage were used to advantage as the warning to decrease dosage or discontinue medication. Since the days of the William Withering, digitalis has been known to produce nausea and vomiting when tolerance was exceeded. For the hundred years that the drug was given in its relatively crude forms its most prominent side-effects were used by physicians as a guide for dosage adjustment. Then the pharmaceutical industry placed in the doctor's hands the pure glycosides of digitalis for oral or parenteral administration to make available consistently potent preparations which could be given in accurately measured dosage. There is no question concerning superiority of such products over the old digitalis formulas but the manufacturer and physician must now recognize new and different side-effects which may be of substantially greater intensity.

Quinine, one of the old drugs with specific activity against the malaria parasite, was given without much fear of dangerous toxicity. Even the patient knew that ringing in the ears, dizziness and headache were danger signals indicating decreased dosage. Now, through research, malaria is treated with a half-dozen or more synthetic drugs, some of which have quite different side-effects and in oversdosage may be unsafe, indeed.

As one reviews developments in therapy, rarely is an instance encountered where the new drug is less dangerous than the old. Penicillin is the outstanding exception for, in treatment of syphilis, for example, it is far more safe than the old arsenicals. Penicillin is indeed the wonder drug of the age for, with all its broad effectiveness against so many infections, the

margin of safety it provides is almost without limit. The other antibiotics which have been developed in our industry are not so free of side-effects. The eighth nerve damage produced by streptomycin is of no minor consequence and the gastro-intestinal disturbances which have become apparent with continued use of the broad spectrum antibiotics must be the cause of some concern to their producers. Only after months of use of some of these remarkable agents has it beome, apparent that in an occasional patient blood forming tissues may be depressed to the point where dangerous anemia results.

The sulfonamides brought their problems of toxicity. Sulfanilamide produced frightening cyanosis through its effect on hemaglobin while the block of kidney function seen with some of the newer sulfonamides proved to be a most disturbing side-effect. New anticonvulsant drugs, although unquestionably more ideal in many respects, may cause serious toxic manifestations which are not seen with old and well established phenobarbital. With the hydantoins an unpredictable gum hypertrophy is a peculiar and unwanted result of treatment and profound effects on blood cells sometimes are noted.

To aid in handling some of the problems of medical practice we are even bold enough to tamper with the blood clotting mechanism. Anticoagulants, while very useful, are tricky drugs to administer with safety. Dosage of heparin must be controlled by frequent determinations of coagulation time although, fortunately, a rapid means of counteracting heparin effect has been developed to lessen the danger of unexpected hemorrhage. Treatment with dicumarol entails even greater risk. Here dosage must be regulated on the basis of frequent estimation of prothrombin time, a laboratory procedure which in itself is complicated and somewhat uncertain.

Fundamental investigation in the field of neuromuscular chemistry and physiology has pointed the way to a variety of new drugs, some of which exert a profound effect upon vital functions. Here we have compounds which act strongly on the heart, blood vessels, intestinal tract and even on skeletal muscle. Drug interference with these physiological processes may produce profound and serious side-effects.

Before the introduction of antithyroid drugs, hyperthyroidism seemed to be permanently established as a surgical problem. Medical treatment utilized forms of iodine but was carried out only as a preliminary to surgical removal of the gland. Then came the thiouracils and later, the mercaptoimidazoles, with occasional adverse effects which research had to uncover and warn against. Anti-tuberculosis drugs seem to be consistently toxic. Because of serious side-effects, the thiosemicarbazones have not been widely applied in treatment of this disease and the recently described isonicotinic hydrazide may present some dangerous aspects.

The adrenal hormones cannot be regarded as innocuous compounds. Desoxycorticosterone has a profound effect upon sodium and potassium metabolism and cannot be used without strict observation of the patient. The difficulty of maintaining therapy with cortisone without side-effects in such chronic disorders as rheumatoid arthritis is well known to all. Certainly this is not a drug to be given without constant medical supervision and ACTH must be considered in the same category. Mention of the great toxic potentiality in the nitrogen mustard compounds, in urethane and antabuse, serve to conclude this hasty consideration of some of the newer drugs and the problems which they create in our industry and in medical practice.

This review is by no means intended to suggest that research to find new drugs be abandoned because most new drugs are dangerous. It is offered only to stress the fact that the hazards of developing and marketing new drugs have increased tremendously in recent years and that as a result, the manufacturer, to protect himself, the doctor and the public, must procure the most highly trained scientific personnel available for his pharmacological and clinical staff. That this need for high grade medical personnel is recognized is evidenced in the type of man now attending our Medical Section meetings. Industry appears to be successfully attracting more and more physicians with the medical background which is so essential for this work. Only a short time ago scientists and medical men often looked with disdain on the colleague who associated himself with our industry. Twenty years ago a prominent pharmacologist who accepted a position with one of our companies found it necessary to give up a highly prized membership in one of his scientific societies. Today, he has not only been reinstated in that organization, but is serving as its president.

Coloring of Pharmaceuticals

by W. H. Peacock

PART III

This is the third and final article by Mr. Peacock on the coloring of pharmaceuticals.

IV. Green Effects

F.D.&C. Green No. 1—Guinea Green B imparts a moderately bright green color, and currently is the most economical, straight, F.D.&C. green dye. In most applications however, it can be replaced with a mixture of F.D.&C. Yellow No. 5 and F.D.&C. Blue No. 1, to considerable economic advantage. It is highly soluble in water, about 19 per cent at either 87°F. or 39.2°F.; soluble in glycerine (7.5 per cent), glycols and alcohol; sparingly soluble in ketones; and insoluble in esters, ethers, fatty acids, hydrocarbons, oils and waxes. It has good fastness to acids, but its resistance is moderate to poor to light, alkalies, oxidizing and reducing agents. It is compatible in solution with some metallic salts for short periods, although much depends on concentration and temperature factors. It is an "acid" dye, having affinity for proteins.

D.&C. Green No. 5—Alizarine Cyanine Green CG imparts a slightly dull, bluish green color. This is the fastest to light and fastest to alkali, certified green dye. It is bluer in hue, duller and lower in "saturation" and much less soluble in water (about 3 per cent) than F.D&C. Green No. 1, see above, but otherwise approaches that dye in aplication properties. For coloring drugs and cosmetics this is the most generally useful, straight, certified green dye. It is an "acid" dye, have affinity for proteins.

V. Blue Effects

F.D.&C. Blue No. 1—Brilliant Blue FCF imparts a bright, greenish blue color, and is the most widely useful F.D.&C. blue dye. It is one of the most soluble dyes in water, about 39 per cent at either 87°F. (30°C.) or 39.2°F. (4°C.); soluble in glycerine (8 per cent), glycols, alcohols and glycol ethers; and insoluble in most esters, ethers, fatty acids, hydrocarbons, ketones, oils and waxes. Its resistance is poor to moderate to light, acids, alkalies, reducing and oxidizing agents. It has moderate to good resistance to aldehydes. When metallic salts are added to its solutions it tends slowly to form precipitates—nevertheless it is suitable for coloring certain tablet compositions used to make antiseptic solutions for immediate use and not stored. It can be used to color isotonic solutions. In combination with F.D.&C. Yellow No. 5 this dye yields a wide range of moderately bright green color effects. It yields very dull navy to violet colors when blended with red colorants, but in combination with F.D.&C. Violet No. 1 it produces attractive reddish blue and bluish violet effects. It is an "acid" dye, having affinity for proteins.

F.D.&C. Blue No. 2—Indigotine imparts an indigo blue color. It has very poor fastness to light and relatively poor solubility (about 1½ per cent) in water. Its very good fastness to acids, and moderate resistance to some reducing agents are its major favorable characteristics. It is soluble in glycerine and glycols, very sparingly soluble in alcohols, and glycol ethers; and insoluble in esters, ethers, fatty acids, hydrocarbons, ketones, oils and waxes. It tends slowly to form precipitates when metallic salts are added to its solution in water. It can be used to color isotonic solutions. For

most purposes it can be replaced with some advantages by mixtures of F.D.&C. Blue No. 1 and F.D.&C. Violet No. 1. It is an "acid" dye, having affinity for proteins.

VI. Violet Effects

F.D.&C. Violet No. 1—Benzyl Violet B imparts a bright, slightly bluish violet color. This is the only violet dye on the F.D.&C. list. It is useful for obtaining violet and reddish blue effects in combination with F.D.&C. Blue No. 1, and red violet and maroon effects with F.D.&C. Red No. 2. It is soluble in water (about 14 per cent), glycerine, glycol, glycol ethers and alcohols. It is unsoluble in most esters, ethers, fatty acids, hydrocarbons, ketones, oils and waxes. Its fastness to light and oxidizing agents is only moderate; reducing agents tend to destroy it, and metallic salts tend to form poorly soluble complexes. It has good fastness to acids and alkalies. It is an "acid" dye, having affinity for proteins.

VII. Brown Effects

D.&C. Brown No. 1—Resorcin Brown Y imparts an orangy, yellow brown or yellowish tan color. Its principal good features are good resistance to acids and very good resistance to alkalies. It is useful for "amber" effects in signal systems and as a basis for colorant mixtures to get brown effects, particularly in combination with D.&C. Black No. 1 and F.D.&C. Red No. 2. It is soluble in water (about 6 per cent), although this feature may be affected adversely by acids. It is soluble in glycerine, glycols and glycol ethers; very sparingly soluble in alcohols and insoluble in esters, ethers, fatty acids, hydrocarbons, ketones, oils and waxes. It has only moderate fastness to light and oxidizing agents, is readily attacked by reducing agents and forms precipitates when metallic salts are added to its aqueous solutions. For most applications it can be replaced with mixtures of orange dyes and D.&C. Black No. 1. It is an "acid" dye, having affinity for proteins.

VIII. Black Effects

D.&C. Black No. 1—Coonassie Fast Black B imparts dark blue to bluish black colors. This useful dye is featured by good fastness to light and alkalies and as being a good darkening agent to reduce the "value" and "saturation" effects, particularly in colorant blends to yield brown colors. It is soluble in water (3 per cent-4 per cent), glycerine, glycols and glycol ethers; very sparingly soluble in alcohols and insoluble in esters, ethers, fatty acids, hydrocarbons, ketones, oils and waxes. It is badly affected by reducing and oxidizing reagents and tends to form precipitates when metallic salts are added to its solutions in water. The addition of five to ten parts of its weight of an orange dye, or of yellow and red dyes, tends to produce yellowish (jet) blacks and reddish blacks. The addition of five to ten parts of this black dye to 95-90 parts of D.&C. Orange No. 4 tends to yield khaki colors; while the addition of 20-30 parts of this black dye tends to give cedar, walnut and brownish mahogany effects, although some F.D.&C. Red No. 2 may also be required. Formerly, F.D.&C. Biue No. 2 was much used for these (brown) colorant blends, and is still used for dye blends for food, but in the drug field the use of D.&C. Black No. 1 is preferable. This dye is an "acid" dye, having affinity for proteins.

-b-Organo—Soluble Dyes

I. Red Effects

F.D.&C. Red No. 32—Oil Red XO imparts yellowish scarlet to very red orange colors. This dye is characterized by being soluble in cresylic acid, esters, fats, fatty acids, hydrocarbons, oils, phenol, and waxes; is moderately soluble in glycol ethers; very sparingly soluble in alcohols, ethers and ketones and insoluble in water, glycerine and glycols. It has only moderate fastness to light and oxidizing agents, is destroyed by reducing agents, has poor fastness to strong acids and moderate to good resistance to alkalies, and may be darkened by, but has little tendency to unite with metallic salts, because it is relatively free from salt forming groups. This is the only "oil-soluble" red legally usable for coloring food.

D.&C. Red No. 17—Sudan III imparts a scarlet color, somewhat bluer in cast than F.D.&C. Red No. 32. As this latter dye approaches it closely in application properties and is currently much cheaper it has largely replaced D.&C. Red No. 17.

D.&C. Red No. 18—Oil Red OS imparts a slightly dull bluish red color. Its hue is much bluer than F.D.&C. Red No. 32, but otherwise its general application properties are very similar. This dye is sometimes used to color the oil and wax phases of emulsions in which the aqueous phase has been colored with D.&C. Red No. 19. It is currently much more costly for use in colorant blends than F.D.&C. Red No. 32.

D.&C. Red No. 37—Rhodamine B Stearate imparts a bluish red color. This product is essentially a dispersion of rhodamine base in stearic acid, in which form it is miscible with certain esters, animal and vegetable oils and animal and vegetable waxes, and aromatic hydrocarbons (toluene). It is much less miscible with mineral oils, mineral waxes and aliphatic hydrocarbons (petroleums). It is soluble to some degree in alcohols, ethers, fatty acids and ketones. It has been used to color emulsions of fats, although special studies may be required. Its resistance to reagents are similar to those noted for D.&C. Red No. 19. D.&C. Red No. 37 is a derivative of rhodamine convenient for dispersion in non-aqueous products, and, where aplicable, is generally preferable to the use of D.&C. Red No. 18.

II. Orange Effects

F.D.&C. Orange No. 2—Orange SS. imparts a slightly reddish orange color, and is the only "oil-soluble" orange dye on the F.D.&C. lists. Its uses, solubility and fastness properties are closely similar to those given above for F.D.&C. Red No. 32. It has been found particularly useful for coloring slightly alkaline emulsions, sometimes with F.D.&C. Orange No. 1 present in the aqueous phase. While somewhat duller color effects might be obtained, in certain aplications

(*Continued on page 697*)

Duraglas stock-mold bottle No. A-4445 can help you gain brand recognition at the point of sale

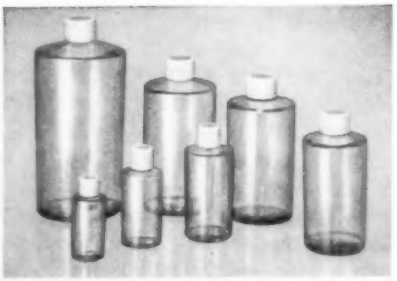
MAKE-UP makes the difference...

gives your package individuality . . . your complete line a family look!

There's a world of difference at the point of sale when your product or your complete line has a distinctive package with sales appeal. Your products present a united sales impact . . . benefit from impulse sales as well as your brand recognition.

Owens-Illinois has more than 1400 different sizes and styles of stock-mold Duraglas containers from which you can choose the ones that are exactly right for your products. Then, skilled packaging specialists at the Duraglas Center will help you add glamour and sales appeal with an effective label and closure combination.

Even in these unusual times there is wide latitude to the individuality you can give your product. And, remember, no matter what market conditions may be, it doesn't pay to let your package get out of the habit of selling.



These Duraglas rounds offer a family range of ½-oz., 1-oz., 2-oz., 4-oz., 6-oz., 8-oz., and 16-oz. sizes.

Duraglas TRADE MARK REG. U.S. PAT. OFF. **bottles are protectors of quality**

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

Packaging and Selling

Cosmetic Retail Panel

The May issue of the magazine, Beauty Fashion, is publishing the results of a retail panel conducted very much along the lines of the comprehensive panel of executive opinion which reflected the viewpoint of the manufacturing industry and was published in January Beauty Fashion.

This retail panel which included representative department stores, drug chains and retail drug stores in every state and in different size communities in these states covered quite a lot of ground and revealed some unexpected and interesting viewpoints among the retailers.

These retail folks in estimating which cosmetic products would have a better than average chance for increased sales during this year pretty much parallel the cosmetic products selected by manufacturers as having the greatest 1952 sales potential. More than half of the retailers selected indelible lipsticks, home permanents, home hair tints and solid colognes. Between 1/3 and ½ of the retailers added shampoos, deodorants and cream or liquid sachets. In the case of the cream or liquid sachets, this high rating of 33 per cent is a little surprising in view of the fact that these products are fairly new on the retail shelf.

In selecting the products that are most responsive for impulse buying, that is, the products which, when given a chance for display on the retail counter, are the relatively fast movers, these retailers selected solid perfumes and colognes as the number one cosmetic product which gives the best return when given display. Sixty-four per cent of the retailers specified the stick perfume and cologne. Other favorites which were checked by more than 50 per cent of the dealers are deodorants, shampoos and home permanents. Strangely enough, in spite of the fact that these retailers have given first preference to the indelible lipstick as the product with the greatest sales growth potential for this year gave only a 48 per cent vote for the indelible lipstick as the most deserving product for space on the counter.

Retailers are evidently thinking more seriously about giving a little more time to their own private brand. Of all the stores which have a private brand 79 per cent stated that they plan to give these products more sales emphasis. Breaking this vote down into retail divisions showed 80 per cent of the department stores, 100 per cent of the drug stores and 66 per cent of the drug chains favoring more aggressive private brand emphasis. Retailers evidently think that Mothers' Day is not getting anywhere near the volume of promotion justified by this gift occasion. When these retailers were asked which of the six leading gift occasions would produce more sales if advertising and promotion were increased for that period, they gave a 66 per cent preferential vote for Mothers' Day.

Retailers are not too sure about the insistance on brand merchandise from their customers. When they were asked to check the classification as to how many women ask for a fragrance and a cosmetic by brand name, only 14 per cent stated that every customer specified a brand name for a fragrance and only 15 per cent felt that everyone called for a branded cosmetic. In buying a fragrance 29 per cent of the dealers thought that one out of two customers called for a brand name, 41 per cent thought it was one out of three, 5 per cent thought it was one out of four and 11 per cent thought it was one out of five of all customers who were insisting or calling for a brand name fragrance. There was a very interesting variation in their opinion regarding the purchase of a cosmetic. Here nearly twice as many retailers as in the case of a fragrance, that is, 53 per cent thought that one out of two women would call for a cosmetic by brand name. Twenty per cent of these retailers thought it would be one out of three customers, 5 per cent one out of four and 7 per cent one out of five.

In regard to the various factors that are used to sell cosmetics and fragrances over the retail counter, a heavy percentage of the retailers place sales girls' education as the number one factor in successful selling. Following this, retail opinion rates as effective in bringing about sales as local advertising, national advertising, local sampling, manufacturers mail inserts and surprisingly last, sales display. Retailers may have had in mind in regard to store display that while it has unquestioned potency in determining whose brand will sell, it takes a secondary position in creating over all sales. Many cosmetic and fragrance manufacturers will find it difficult to understand this retail opinion in regard to display, when they find retail buyers continually in their show room turning a cold shoulder to staples and grabbing with enthusiasm any sort of a nick-nack, novelty or gadget which will give them a quick turn with nothing to facilitate the sale except counter display.

One of the most interesting questions in our opinion which this panel put before this group of retailers was the following:

"When you are considering the purchase of a new product or a new line which of the following would you say are of primary importance in forming a favorable decision?"

Confuting and confusing all of the cynics in the industry, PRODUCT MERIT won by a wide margin. Over 40 per cent of the retailers voted that the merit of the product submitted to them outweighed everything else in influencing their decision to buy.

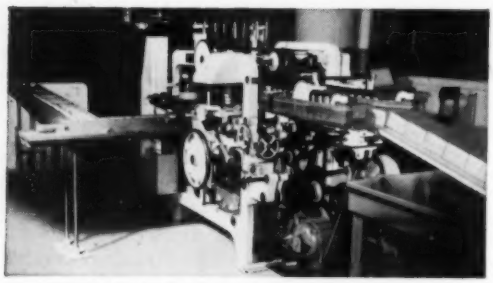
Also contradicting cynics is the second selection on which 21 per cent of the stores voted, and that is the reputation of the company submitting the product or the line.

In the following order retailers checked these additional factors as influencing their decision to buy.

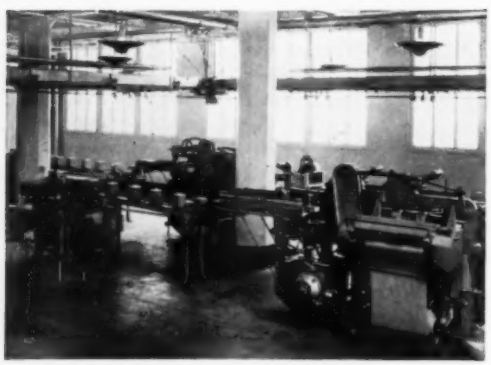
(1) The retailers' opinion of sales potential of the product.

(2) The future value of this association to the store.

MACHINE BUNDLING
A Great Cost Reducer



Machine for small-size packages, bundling Squibb Dental Cream



Machines bundling Royal Dessert

The products illustrated above are but a few of the many now being bundled on our machines.

The rapid growth of machine bundling is due to the large savings it makes. And you'll be surprised at what a strong, protective bundle our machines make. Practical not only for goods in cartons, but also for bottled products in cartons.

A single roll of strong kraft paper, as used on our machines, will produce hundreds of bundles. You can readily see how great a saving this makes over the cost of cardboard boxes or fibre containers.

The machine bundles a dozen, half dozen or any desired quantity of cartons within its size range. It can be equipped with an automatic assembling unit, mounted at the infeed, to assemble the packages in the best arrangement for a compact bundle.

Printed end seals are applied automatically. Plain paper or paper with an over-all printed design is usually used. But, if desired, the machine may be equipped with an electric eye for registering paper having printed panels.

Dealers prefer goods in bundles because they're so easy to handle and stock. Shipping costs, too, are lowered because bundled goods weigh less.

For further information, write our nearest office

PACKAGE MACHINERY COMPANY • *Wrapping Division*
Springfield, Massachusetts

NEW YORK CHICAGO BOSTON CLEVELAND ATLANTA
DALLAS DENVER LOS ANGELES SAN FRANCISCO SEATTLE
VANCOUVER, WASH. TORONTO MEXICO, D.F.

PACKAGE MACHINERY COMPANY

Over a Half Billion Packages per day are wrapped on our Machines

(3) Pricing.
(4) Attractive packaging.
(5) The advertising plan.
(6) Company's distribution plan.
(7) Case history of sales in other stores.

Apparently buyers overwhelmingly agree that when they are considering the purchase of a new product that they will first examine the quality of the product, the company's reputation, its price and its package and their own opinion of its market potential before they pay any attention to the manufacturers advertising and promotion presentations. Yet how many salesmen, in presenting a new product for retail consideration, jump with both feet immediately into the advertising program apparently expecting a tacit agreement from the retailer that if the advertising is enough of a grand slam, such trifles as the quality of the product, its package and its price can be dispensed with as minor considerations.

Sixty-five per cent of all of these retailers believe that self-service will be restricted to massed advertised utility toiletries and will not increase to include the sale of higher priced, fashion or prestige cosmetics. Voting this opinion showed that 65 per cent of the department stores felt this way, 81 per cent of the independent druggists and 62 per cent of the chain drug stores.

Reversing this percentage, only 36 per cent of these stores believe that a self-service counter in a cosmetic department which now depends on personal selling would pay off. This survey in full detail and with a far more complete analysis is appearing in the May issue of Beauty Fashion magazine published at this address.

Too Much Self Service

Supermarkets are discovering that self-service also means pilferage. Quite a number of stores estimate this loss reaches as high as one-third of store profits.

An interesting thing about grocery store pilferage, which would undoubtedly apply in any other kind of self-service retailing, is that the financial status of the shopper doesn't mean anything. About the same number of rich people are caught as poor people.

As a warning to our industry, these stores find that the favorite products with this kind of theft are the small luxury items and a fascinating technique with many variations is being developed to get away with these small package, relatively high priced goods.

Another interesting discovery is that a large part of theft at the self-service counter is "impulse thievery". That good old impulse works just as hard whether people have the money or not, or the inclination to snatch without putting up the money.

New Plax Tube

A new squeezable plastic dispenser has been developed by the Plax Corporation for packaging colognes, lotions, medications and other liquids. This leading dispenser called the "Dropette" holds 1/8 of an ounce and is 2 3/8 inches long. The tapered tip permits dispensing a cologne or medication into the exact location desired.

Selling After Hours

There is a country wide movement by retailers to adjust open store hours to customer convenience. This means in a time of high employment, evening shopping periods.

One of the most progressive leaders in this movement has been the supermarkets, particularly on the Coast and in the Southwest where this type of store has been far ahead of the rest of the country in introducing innovations.

However, retail employee unions have been in some cases bitterly fighting evening and holiday employment and just recently 1,000 employees of eight downtown department and specialty stores staged a mass meeting to protest against Monday night openings.

We are now in the middle of a vigorous contest to determine the predominant method of retail selling in America, i.e., personal service or self-service. While no one believes that one method can ever exclude the other, everyone knows that there is a vast area in which the scales are apparently fairly well balanced as to the effectiveness of each method of selling.

If experience shows that a change in store hours, particularly in providing an opportunity for evening shopping, is what a large part of the consuming public wants, then the store employees are going to have to adjust themselves to a new schedule of working hours or quite a few of them are going to have to find jobs in other work than behind-the-counter selling.

Some Impulse

Ice cream is another commodity that the grocery supermarket is draining from other kinds of retail stores. Grocers are reported today to do 75 per cent of all the packaged ice cream consumed in the country. This is because of the advantage the grocery store has in frozen food equipment and display.

According to a report from the National Dairy Products Corporation only one out of ten packages of ice cream sold in grocery stores was on the shopper's list. The other nine were sold through good displays. This is some record on impulse selling.

Whither Impulse

What we would like to see is a progressive chart showing the number of instances of impulse buying during the next few years. New facts on impulse buying have been among the fascinating discoveries of market research in the last few years. These kind of purchases in retail stores have been estimated to run anywhere from 20 to 90 per cent, with various experts claiming that most standard food products in the supermarket ring up at least 50 per cent of their sales as impulse purchases.

However, it seems highly probable to us that if consumer purchasing declines to any extent then the impulse purchase will tend to diminish. In fact we may well be entering a period where the tendency will more and more be for the shopper to make up a careful list within the family budget before leaving for the store.

We even think that many of the new so-called trends and changing shopping habits of the consumer which have aroused so much rabid interest in speeches and print may begin to look much less like a trend, much less revolutionary and much less of a change in shopping habits as consumer income and employment veers away from this opulent period of war spending, capital expansion and foreign aid.

It isn't much use having impulses if you haven't got the money in your pocket.

There are 8 sizes in our L-33 line of machine made, flint glass bottles. The smallest is 1/2 ounce . . . the largest 16 ounces. They can be supplied plain or decorated to your specifications with fired-on ceramic labels.

CARR-LOWREY GLASS CO.

Designers and manufacturers of fine glass containers

Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

Pacific Paper Box Co.—2nd. Award
Manufactured for Gorex Corporation

Walter P. Miller Co.—Hon. Mention
Manufactured for Hydrol Chem. Co.

F. N. Burt Company—2nd. Award
Manufactured for Matchabelli

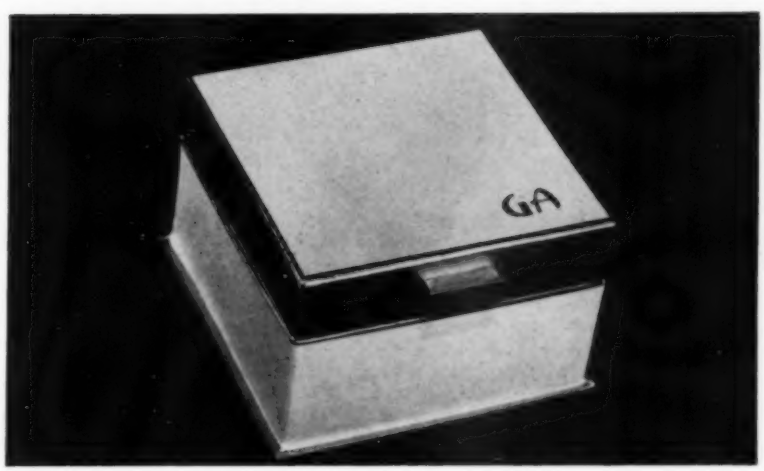
1952 Paper Box Competition

Of the more than 1200 set-up paper boxes entered in the 1952 Set-Up Paper Box Competition, 77 received scrolls representing First, Second and Honorable Mention awards during the 34th annual meeting of the National Paper Box Manufacturers Association from May 11 to 14 at the Drake Hotel in Chicago.

Five of the awards were presented for excellence in drug packaging, and six, in cosmetic packaging. The boxes were judged in March at Association-Competition Headquarters in Philadelphia. Twenty-two End Use classifications were judged in addition to Best Artistic Design, Superiority of Construction and Best Display Box. The latter three categories were judged on the basis of their qualifying titles, and the End Use entries, on the general functions of the set-up box—protection of the product, appropriateness of the package, brand identification, convenience, economy and sales appeal.

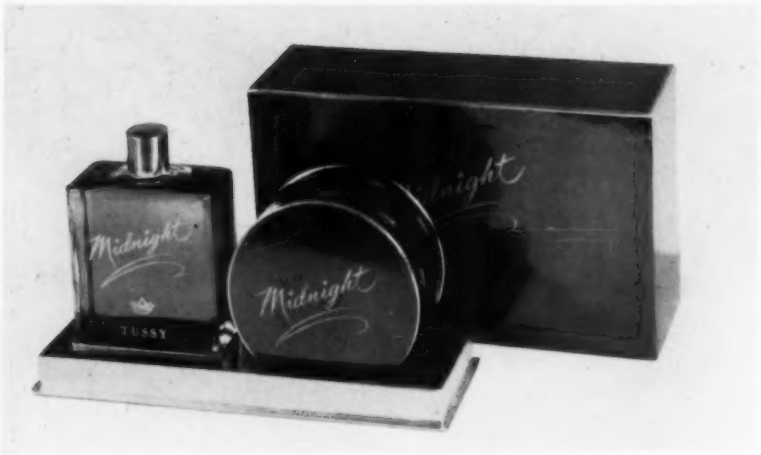
First Awards were presented to Walter P. Miller Co., Inc., Philadelphia, honoring a Butisol Sodium box for McNeil Laboratories, Inc.; W. C. Ritchie & Co., Chicago, for a Midnight Cologne and Dusting Powder box for Lehn & Fink Products Corp.; Dennison Mfg. Co., Marlboro, Mass., for a DeVilbiss Perfumizer box made for the DeVilbiss Co.; Fair Martin Boxes, Inc., Concord, N.C., for Toilet Soap boxes made for Carolina Co., Inc.; and The Mason Box Co., Attleboro Falls, Mass., for Drug Samples Mailing box, made for Chas. Pfizer & Co., Inc.

Second Awards were presented to Pacific Paper Box Co., Los Angeles, for



W. C. Ritchie & Co.—Hon. Mention
Manufactured for Gilda Audrey Prods.

Walter P. Miller Co.—1st. Award
Manufactured for McNeil Labs. Inc.



W. C. Ritchie & Co.—1st. Award
Made for Lehn and Fink Products

a Vitamin-Mineral Supplement box made for Corex Corp.; F. N. Burt Co., Buffalo, for a Cologne Collection package made for Prince Matchabelli; and Walter P. Miller Co., Inc., for a Pharmaceutical Samples Mailing box made for Ciba Pharmaceutical Products Inc.

Honorable Mentions were awarded to Walter P. Miller Co., for a Hydrol Chemical box made for Hydrol Chemical Co.; W. C. Ritchie & Co, for a Gilda Audrey Powder box made for Gilda Audrey Products, Inc.; and A. Dorfman Co., Inc., New York, for a Nostalgia Perfume box made for Parfum Monteil.

Another Thinner

Rexall has announced a complete packaged reducing plan developed for them by Ann Delafield. This package includes a low-calory and drug free supplementary food wafer, vitamin capsules and a book by Ann Delafield.

Five and Ten

The National Association of Variety Stores, Inc. is scheduling their 5c to $5.00 Merchandise Fairs in five key locations so that busy store managers will not need to take too much time away from their job.

Following are the dates and locations of these variety store fairs:

Dallas, Texas, July 13-14-15, Baker Hotel; Chicago, Illinois, July 27-28-29-30-31, La Salle Hotel; Atlanta, Georgia, August 10-11-12, Municipal Auditorium; Pittsburgh, Penna., August 17-18-19, Hotel William Penn; Denver, Colorado, September 14-15-16, Cosmopolitan Hotel.

A. Dorfman Co., Inc.—Hon. Mention
Manufactured for Parfum Monteil

Out of Hiding

One of the newest cigarettes, Wint-A-Green, as the name implies, is a tobacco flavored with Wintergreen. As far as we know, it is the first time any tobacco company has come out of hiding and admitted the use of a flavor. The tobacco industry has long been rated as one of the major users of flavors.

Big and Bouncy

One of the most interesting exhibits at the recent Packaging Show was the big bouncing Plax Carboys.

These light, unbreakable Carboys are now blow-molded in one piece and come in capacities of 6½ and 13 gallons.

Plax Corporation states that these Carboys are suited for packaging a wide range of industrial acids and other liquid chemicals including many corrosive or dangerous chemicals.

Hudnut Advertising Campaign

The Richard Hudnut division of Warner-Hudnut, Inc. plans to spend over $1,000,000 exclusively in newspapers this spring and summer in a two-phase advertising campaign on Hudnut Hair preparations and three new DuBarry products.

Fragrance in the Home

Vantines are releasing publicity on their package of woodpulp cones in which several odors are available to burn as incense for fragrance in the home.

Here We Go Again

Another new chlorophyll product is Femese, a woman's pain-reliever and deodorizer, now being introduced to the market by Stanley Drug Products Co., Portland, Oregon.

Tip for Salesmen

TWA Western Division Air Lines confidently expect a big boost in passenger traffic particularly among business men. The hostesses of this progressive airline have just completed a course in cosmetic beautification at Max Factor's Hollywood Make-Up Studio.

Less for More

An advertiser must spend 10 per cent more money this year than last to get the same audience, and 32 per cent more for the same audience than he spent in 1941. These figures were presented at the American Association of Advertising Agencies' meeting.

Cap Liner Tests

Two new tests for the efficiency of screw-cap bottle closures have been developed by the Drug and Pharmaceutical Committee headed by Carl B. Burnside of Eli Lilly & Co. One of these tests is a quantitative method of measuring the passage of water vapor through the liner of a tightly closed container. The other test is used to determine the compatibility of the contents of the package with the liner material and coating.

A City from Scratch

The new $25,000,000 shopping center under construction at Levittown, Pennsylvania is part of a city that is being started with all of the advantages that planning provides. This 50 acre shopping center will have 330,000 square feet of ground floor space in seven master store buildings with a parking area for 5,000 cars. More than 500 applications for space have already been received.

GRIP . . . BEND . . . SNAP—
Neutraglas Color-Break Ampuls are ready to use!

Now-give your product perfect protection in new

KIMBLE COLOR-BREAK AMPULS

Here's the package you've always wanted—can't be tampered with . . . keeps your product pure and unadulterated . . . and, now, *easy to open.*

Neutraglas Color-Break* Ampuls are inert to their contents. Solvents, chemicals, sterilizing agents—even distilled water—find these ampuls persistently indifferent to chemical action.

There's no filing . . . no scoring . . . no sawing! Simply hold one of these new ampuls in your hands . . . bend it, and the stem snaps off! Presto, it's ready for use. Think of the convenience you can offer the users of your products.

The secret of this revolutionary Kimble development—the result of nine years' work—is in the patented blue color band around the neck of the ampul. This color-break feature is the greatest improvement in ampuls since the development of Neutraglas containers. *Decide today to modernize your ampul package.*

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

*Owens-Illinois Trade Mark

"These smooth, colorful caps are *so attractive!*"

Efficient MeritSEAL caps give your products a luxurious, sparkling finish that really helps sell your cosmetics for you! Hard scratch-resistant coating comes in glistening, jewel-tone colors—handsomely lacquered or lithographed to suit your exact requirements. Exclusive, patented thread construction spins cap on easily, forms a perfect-fitting seal. Send for full information and samples today . . . no obligation. Simply state your color preference, and sizes needed for your products.

CROWN CORK
SPECIALTY CORP.
Division of Crown Cork & Seal Company

CROWN
MeritSEAL

Main Office: St. Louis, Mo.
Chicago: 401 Ontario St. • New York: 60 East Forty-Second St.
Western Representative: Western Crown Cork & Seal Corp.,
San Francisco . . . Los Angeles

Custom Protection for cosmetics—

the touch of elegance that adds glamorous new sales appeal

Imagine a packaging material that's soft, white, sparkling clean—that enhances the beauty of your product while giving real protection, too! You'll find these advantages in Kimberly-Clark Interior Packaging—KIMPAK*... the amazingly versatile cellulose wadding that provides *custom protection* for any kind of cosmetics.

As this smartly designed Max Factor package shows, KIMPAK does more than guard against shock, vibration and surface damage. It adds a distinctive touch of grace and beauty—in a way no other packaging material can equal. And since KIMPAK is available in rolls, sheets or pads of many thicknesses, it can be tailored to fit any packaging need.

Regardless of whether you package perfume, soap, lotion, face powder or lipstick, you'll find KIMPAK is the smart, modern way to give your product protection with *sales appeal.*

KIMPAK INTERIOR PACKAGING

A Product of **Kimberly-Clark** CORPORATION, NEENAH, WISCONSIN

*T. M. REG. U. S. PAT. OFF. & FOREIGN COUNTRIES

Why majority of consumers

SURVEY HIGHLIGHT. A gain of 111% in the number of aerosol-product users during the past five years was shown by the fifth nationwide Du Pont survey of the market for aerosols, conducted in 1951.

AEROSOLS USED BY MORE THAN HALF THOSE QUESTIONED. Fully 57% of the men and women questioned in both urban and rural market areas from coast to coast reported that they had purchased aerosol-packaged products of one type or another.

The majority of these users stated that they were well satisfied. For example, many respondents had purchased and used both the wick type and the aerosol type of room deodorant. Of these buyers, 61% of the urban residents and 73% of those living in rural districts said that they liked the modern aerosol method of packaging better. This indicates a preference for aerosols of 3 to 1 in the urban group; 9 to 1 in the rural group.

By further questioning in both markets, it was shown that purchasers preferred room deodorants of the aerosol-packaged type for the following reasons:

Effectiveness	40%	(average)
Quick-acting	37%	(average)
Convenience	30%	"
Pleasant odor	22%	"
Clean; not messy	6%	"
More widespread	5%	"
Longer-lasting	5%	"

BIG PERCENTAGE RE-BUY. 80% of the urban users of aerosol room deodorants said that they would continue to purchase products of this type. 92% of the buyers in rural markets made a similar statement.

Throughout the entire field of aerosol products the report is much the same. This newer way of packing has a definite sales appeal that is proving a profit builder everywhere. Dealers who have featured aerosol-packed products report that repeat

DU PONT
REG. U.S. PAT. OFF.
150th Anniversary
"FREON" SAFE
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

prefer AEROSOL packaging

sales have been steady and are encouragingly high. Over 90% of the dealers answering the survey questionnaire stated that few, if any, of their customers voiced dissatisfaction with any aerosol product they had purchased . . . further indication that the popularity of aerosol products will continue to gain rapidly.

SURVEY DIGEST FREE. If you are now marketing an aerosol product, write for a copy of the 1951 Du Pont Aerosol Market Survey Digest. If you are considering the possibility of this type of packaging for one or more of your products, you will also be interested in "Package for Profit". . . a 32-page booklet containing valuable information about the expanding market for aerosol products of many types. Address: E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.

Versatility of "Freon" propellents an important factor

Throughout 1951 aerosol manufacturers used a total of 21 different "Freon" propellents. Insecticidal aerosol makers, for example, used four different "Freon" propellents; foam-product and room-deodorant aerosol marketers used three different "Freon" propellents each.

Different ingredients, qualities of solubility, pressures, particle sizes and other properties of an aerosol product dictate that the propellent should be tailored to fit each individual need. Because "Freon" propellents are highly versatile, they can be formulated to meet exacting requirements. In addition, "Freon" propellents are safe . . . noncombustible, nonexplosive, virtually nontoxic, harmless to fabrics, furs and finishes. Their chemical purity further insures correct, satisfactory operation of the aerosol-packaged product.

You are cordially invited to consult Du Pont ("Kinetic" Chemicals Division) technical service for assistance. We will gladly help you in outlining every step from market explorations to production operations. No obligation on your part.

PROPELLENTS

KINETIC

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents.

SPRA-TAINER Does It Again!

Sun Tan Oil by Automatic Atomizer Action

Summer's coming—so keep COPPERTONE in mind. Created by Douglas Laboratories of Miami, this famous product is now pressure-packed in SPRA-TAINER . . . putting a luxurious shower of atomized COPPERTONE Sun Tan Oil at the command of your fingertips.

Manufacturers are finding more and different new uses for SPRA-TAINER all the time! It's the "Pet of the Packaging Industry" because of exclusive Modern Design. SPRA-TAINER is not only the original low-pressure propulsion can, but the *only* one at low cost to feature No Side Seam, No Top Seam construction. No wonder it's First with Manufacturers . . . First in Sales!

Look to Crown for continued leadership in the design and manufacture of fine cans for almost every use. *You can't buy better cans.*

CROWN CAN
Division of
CROWN CORK & SEAL COMPANY

One of America's Largest Can Manufacturers • Plants at Philadelphia, Chicago, Orlando • Branch Offices: New York, Baltimore, Pittsburgh, St. Louis

Doin's

West Disinfecting Co. has introduced a new line of antiseptic protective creams containing Hexachlorophene. They are packed in 12-ounce tubes for sanitary handling. West has also designed the Liquicreme Dispenser which releases the proper amount of protective cream with each stroke of the lever.

Glidden is offering two new deals for Zymenol, nationally advertised brewers' yeast laxative. One consists of eleven 14-ounce bottles of Zymenol, two 84-tablet bottles of Zymelose and sales helps. The other contains eleven 8-ounce bottles and one 84-tablet bottle packed with promotional material.

Merck is offering Cortone, their brand of cortisone, in a 5 mg. tablet size to enable physicians to establish a minimum maintenance dose in rheumatoid arthritis more conveniently. Used alone, or in conjunction with the 25 mg. tablet already supplied, the new size makes it possible to arrive at a dosage of Cortone suitable to the individual patient's requirements.

Alfred D. McKelvy Co. has come up with a "Daily Double" in the Seaforth line. It is packaged in a shiny red and gold box and consists of the new Presto-Lather shave cream (or Veladron Brushless) and a polished jug of Seaforth aftershave lotion.

Royalty Development Corp. has a patent pending on a new type of mineral oil which is said to emulsify itself. When added to water, milk, orange juice, or any other favorite soft drink, it blends so perfectly that there is no trace of oiliness or after-taste usually associated with ordinary mineral oils, and it becomes a part of the drink itself.

Pfizer is furnishing kits containing measured amounts of the most commonly used antibiotics to clinical laboratories throughout the country to aid laboratory technicians in the performance of antibiotic sensitivity tests by the tube dilution method. The kits contain buffered quantities of penicillin, terramycin, aureomycin, bacitracin, chloramphenicol, polymyxin B and dihydrostreptomycin, which can be made up into stock solutions without tedious weighing or filtration.

Helene Curtis is repeating last year's extra-profit deal on Suave. Retailers, beginning this month, are offered a carton of eight 50-cent bottles and three bottles of the $1 size, with their regular 40 per cent profit plus an extra 5 per cent allowance for display.

Massengill has a new specialty product, Tablets Aminodrox, which is a combination of aminophylline and aluminum hydroxide gel, dried, prepared in five combinations. This product provides aminophylline which is well tolerated by the oral route.

Gourielli has prepared three new Moonlight Mist specialties, the Perfumette, Swivel Cologne Stick and the Soap. The Perfumette is a clear glass, one-dram purse-size flacon, and the Cologne Stick is slightly larger than a lipstick, packaged in a blue plastic container sprinkled with silvery moons and silver capped.

Block Drug Co. has released Amm-i-dent with chlorophyll, the first ammoniated tooth paste with chlorophyll. This tooth paste, which is claimed not to stain tooth brushes, towels or clothing, is selling for 53 cents, the same price as the plain Amm-i-dent.

Hazel Bishop is sponsoring a new half-hour dramatic series on NBC-TV which started April 2 from 10 to 10:30 p.m. every Wednesday.

Winthrop-Stearns has introduced a new type of rectal suppository known as P N S combining the effectiveness of three preparations, Pontocaine, Neo-Synephrine and Sulfamylon. It is designed for the treatment of inflammatory rectal conditions, including hemorrhoids, and for application before and after operations. The company is also distributing nationally to the medical profession, Milibis suppositories, which have proved clinically effective for the treatment of vaginal infection.

Tussy is introducing three new summertime colognes, Sentimental, Contraband and Matchmaker. The fragrances will appear individually in eight-ounce liquid cologne and in stick form, and collectively in the Fragrance Trio containing three two-ounce liquid colognes.

Daggett & Ramsdell is introducing a bright red gift package containing a 6-ounce bottle of After Shave Lotion and a black plastic bowl of Shaving Soap for $1.50 plus tax.

Walker Laboratories have introduced Bacimycin, a new ointment combining the antibiotic efficacy of both bacitracin and neomycin. It provides safe and effective topical treatment for most skin infections, minor abrasions and wounds.

Max Factor is introducing a new Lipstick, called Color-Fast, which retails at $1.10 plus tax. It is a long-lasting lipstick with "complete freedom from dryness."

HEYDEN RESORCINOL

A Chemical of Many Uses . . .

DYES

PHARMACEUTICALS

EXPLOSIVES

COSMETICS

PETROLEUM

LEATHER

RUBBER

PLASTICS

ADHESIVES

Resorcinol is an extremely versatile chemical manufactured by Heyden in various grades to serve in the many applications of importance to industry, some of which are listed here:

PHARMACEUTICALS: In manufacture of antiseptics, antipruritic ointments, scalp preparations, etc.

DYESTUFFS: Intermediate for Eosines, Resorcin Browns and Greens, Erythrosines and other dyestuffs and developers.

SYNTHETIC RESIN ADHESIVES: Resorcinol-formaldehyde resins which set rapidly at room temperature, giving a waterproof, fungus-proof bond.

RUBBER: Resins for improving the adhesion of rubber and textiles.

In addition to the above uses, Heyden Resorcinol goes into the manufacture of plastics, textiles, tanning agents, explosives, antioxidants, and many other important products.

AVAILABLE IN FIBER DRUMS.

Samples and further information available upon request on company letterhead.

FINE HEYDEN CHEMICALS

HEYDEN CHEMICAL CORPORATION

393 SEVENTH AVENUE, NEW YORK 1, N.Y.

CHICAGO • PHILADELPHIA • SAN FRANCISCO • DETROIT • PROVIDENCE

SERVING INDUSTRY THROUGH FINER CHEMICALS

Benzaldehyde • Benzoates • Benzyl Chloride • Bromides • Chlorinated Aromatics • Creosotes • Formaldehyde
Formic Acid • Glycerophosphates • Guaiacols • Hexamethylenetetramine • Medicinal Colloids • Methylene
Disalicylic Acid • Paraformaldehyde • Parahydroxybenzoates • Penicillin • Pentaerythritols • Propyl Gallate
Resorcinol • Salicylates • Salicylic Acid • Streptomycin

Doin's ... (CONTINUED)

Helene Pessl has added five new Little Lady Deb items to their toiletry collection: Deb Duet, which contains fragrant stick of cologne and a two-ounce bottle of toilet water; the other items are a five-ounce can of talcum powder; a generous container of dusting powder with puff; and rosy pink lipstick.

Smith, Kline & French Laboratories have introduced Trophite, a high-potency elixir of B-12 and B-1, to increase appetite and growth. A single teaspoonful provides the Vitamin B_{12} dosage generally used for nutritive purposes and about 10 times the recommended daily allowance of Vitamin B_1 for children.

Kreml last month released its Father-Son promotion for early Spring 1952 distribution, which features both Kreml Hair Tonic and Kreml Cream Hair Dressing in one package at a one-package price of 59 cents.

Wyeth has developed a new drug, Injection Wyamine Sulfate, designed to increase blood pressure safely in emergencies resulting from a state of shock.

Helena Rubinstein has introduced two new colors in lipstick and nail polish, *Sunny Coral* and *Pink and Fair*. The lipsticks are the creamy indelible Stay-Long type, and the matching nail polishes are packaged in a handy spill-proof bottle.

The Bayer Company is providing an all-glass "self-service" dispenser intended to aid retailers in encouraging impulse sales of pocket-size Bayer Aspirin. The new display is furnished without charge to dealers. Also available is a new counter display stand for the economy-size Bayer Aspirin 100's.

Colgate is now selling its new Veto Spray Deodorant on a nationwide scale, following highly successful market tests.

Acme Cotton Products Co. Inc. has developed a new low-priced first aid kit which retails for 69c. The kit has a transparent top which shows the contents of absorbent cotton, waterproof adhesive bandages, sterilized gauze pads, mercurochrome, ½-inch adhesive tape and 2-inch sterilized gauze bandage.

Daggett & Ramsdell is offering their giant size 3½ ounce jar of "Perfect" Deodorant Cream for 69 cents starting the first of this month. It regularly sells for $1.

Lederle has developed a new anti-epileptic compound, Hibicon, which has been shown through clinical tests at a number of hospitals and research centers to be well tolerated when administered orally. It is said to be effective in cases where other established anti-convulsants have failed.

Abbott has prepared Dicalets, a balanced and stabilized multi-vitamin and mineral tablet supplement for expectant and nursing mothers. Two Dicalets provide all of the recommended daily dietary allowances of vitamins A, D, B_1, B_2, C, nicotinamide, iron, calcium and phosphorus, plus vitamin B_{12}, folic acid, pyridoxine and seven trace minerals.

Armour Laboratories began distributing Crystamin Forte last month. It is a new formulation of vitamin B_{12} designed to speed up absorption each capsule of which contains vitamin B_{12} crystalline U.S.P., desiccated duodenum and folic acid. It is available in bottles of thirty capsules.

Merck is providing wholesalers with N-allylnormophine, a specific antidote to overdosage of morphine and certain other narcotics. Under the trademark of Nalline, the product is best administered intravenously for the most rapid antidote action. Response occurs within two minutes.

Winthrop-Stearns has prepared a companion product to Theominal called Theominal M, which is designed to produce less sedation. Containing less than half as much luminal as the original product, Theominal M is especially suitable in the treatment of hypertension cases where minimal sedation is desired.

Marcelle Cosmetics is introducing Flair, a new pink nail lacquer shade, which blends with the same shade of lipstick and cream rouge.

Sharp & Dohme is offering Benemid Probenecid, a new agent for treating gout. In tablet form, it is a benzoic acid derivative and has the advantage over previously prescribed treatments of low toxicity on protracted administration.

Johnson & Johnson is distributing their Baby Lotion in a new Millsplastic package, a tall, unbreakable bottle.

Shulton reports that last year's sales and store promotions on their Stick Colognes were sensational even though the product was a late-comer on the market.

J. T. Baker Chemical Co. has been selected by the National Broadcasting Co. to dramatize high-purity chemical manufacturing on the weekly television news reel, "Industry on Parade," shown coast-to-coast on 54 stations.

perl bottle filling machine
for
gravity, vacuum or pressure filling

FOR
SPEED
AND
PRECISION

perfect for plastic bottles

High-speed, semi-automatic straight line filling to meet the most exacting requirements for filling all types of solutions in bottles, jars or cans. Superior flexibility adapts the machine quickly for large or small runs with maximum efficiency and economy, and long, trouble free operation. Capacities up to 5 gallons. Filling speeds from 20 to 200 bottles per minute. Send for new catalog.

A COMPLETE LINE OF MACHINES
Bottle Filling • Can Filling • Jar & Tube Filling & Closing • Bottle Cleaning • Ampoule Filling • Wrapping and Counting • Carton Filling & Closing

PERL

PERL MACHINE MFG. CO.
68 JAY STREET BROOKLYN 1, N. Y.

GLASS - - - PRODUCTS

New Ball Applicator

If you need glass rod applicators of any type, we are at your service. Quality and Service is our byword on all types of applicators. Your inquiries solicited. Samples and prices will be furnished promptly upon request.

Glass Products Co.
Established 1922
Vineland, New Jersey

UNSCRAMBLES REGULAR AND ODD SHAPES
Faster . . . Easier

UNSCRAMBLER SPEEDS UP PRODUCTION

● Cartons or cases of bottles, jars, or cans dumped on table are instantly unscrambled and regimented into a single file to keep a continuous flow of units on your production line. Reduces labor costs . . . minimizes breakage . . . saves floor space . . . and meets all sanitary specifications as operator does not handle mouths of units.

ARE YOU CHANGING TO GLASS?

Send for Bulletin ST-1 and learn why there are twice as many ISLAND Styl-O-Matic Unscramblers in use than all other makes combined, and how they are used to unscramble practically every type of container imaginable.

GET THE FACTS NOW!

ISLAND EQUIPMENT CORP.
27-01 Bridge Plaza North
Long Island City 1, N. Y.

Please send full details on the Styl-O-Matic Unscrambling Tables as described in Bulletin ST-1. Dept. DC-5

NAME_____
ADDRESS_____
CITY_____ STATE_____

Filling

TUBES, BOTTLES, JARS, *and* CANS

FASTER...EASIER

Here is a versatile, quality-built machine...engineered to the highest sanitary standards . . . that has many uses in both large and small plants. Dispensing capacity adjustable up to one pint per stroke. Handles liquids, semi-liquids, creams, pastes and greases. Nozzles available for filling practically all types of containers . . . jars, bottles, cans or tubes. The machine is fast, easy to operate, sanitary, and easy to clean. Write today for complete details and reasonable prices.

ROCKFORD
Anderson
BROS. MFG. CO.
ILLINOIS

Ask for Bulletin No. 5-24

ANDERSON BROS. MFG. CO., ROCKFORD, ILL.

New Perfection

DROPPING PARTS

"Repeat-Sale Insurance" for Liquid Preparations

The New Perfection line of functionally designed dropping parts gives satisfaction where satisfaction counts—in the hands of the user. To make sure the customer's first reaction to your product is 100% favorable, specify New Perfection. Our rigid inspection system assures the cleanliness and uniform high quality of every shipment.

New Perfection dropping parts will fit your bottle or can be furnished in combination with our Modernistic bottles in Amber, Blue, Green or Clear glass. Bottle sizes—2 cc, ⅛, ¼, ½, 1 and 2 oz.

#1
Non-rolling, extra-depth Bakelite cap; thick flange rubber bulb; Saftee ball glass.

#3
Regular plastic cap; thin flange rubber bulb; semi-blunt glass.

#4
Metal cap; oil-resisting Amekine synthetic rubber bulb; blunt glass.

#5
Small size plastic cap; midget rubber bulb; regular straight glass.

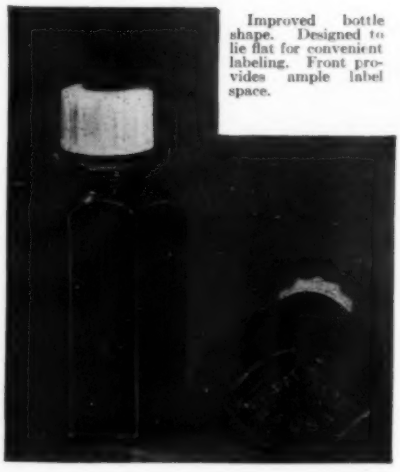
NEW PERFECTION DROPPER GLASSES

CALIBRATED

IN COLOR

This inexpensive extra adds welcome convenience to the use of your product. Accurate calibration in any color marks the specific dosage indicated. Your firm name or trade-mark may also be imprinted.

#2
Non-rolling, extra-depth Bakelite cap; thick flange rubber bulb; special bent glass (CALIBRATED IN COLOR).



Improved bottle shape. Designed to lie flat for convenient labeling. Front provides ample label space.

IN ADDITION to NATURAL RUBBER BULBS for GENERAL USES, WE CAN ALSO SUPPLY

AMEKINE (OIL-RESISTING) Synthetic Rubber Bulbs

which are recommended for use with oil preparations, such as nose and ear drops and vitamin products. Even after long exposure to oil, Amekine closely retains its original shape and functions perfectly.

PENNSYLVANIA
GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH (13), PA., U.S.A.

Depend on Baker for

SALICYLATES

a product for every pharmaceutical need

1 **SALICYLIC ACID, U.S.P.**
Powder and Needle Crystal

2 **ACETYSALICYLIC ACID, U.S.P.**
20 and 40 Mesh Crystal
80 Mesh Powder

ACETYLSALICYLIC ACID
STARCH GRANULATIONS
for Tablet Manufacturers
10% Starch 12 to 50 Mesh
(White, Pink or Green)
16% and 20% Starch
in White only

3 **METHYL SALICYLATE, U.S.P.,**
Synthetic
PHENYL SALICYLATE (SALOL),
N.F., Granular
SODIUM SALICYLATE, U.S.P.,
Crystal and Powder

Look at the *complete* line of Salicylates which Baker can supply you. Among these Salicylates, there is one (or more) ideally suited for *your* pharmaceutical manufacturing need.

For a half century, Baker has built its chemical business on measured purity. That is why leading pharmaceutical and drug companies rely on Baker as a source of supply.

If you buy any of the Salicylates listed above, let us submit samples and prices. It's good quality insurance for *your* products. Address: *Fine Chemical Division*, J. T. Baker Chemical Co., Phillipsburg, N. J.

Baker CHEMICAL

Baker Chemicals

REAGENT • FINE • INDUSTRIAL

News . . .

Abbott Elections

James F. Stiles, Jr., was elected chairman of the board of directors and treasurer of Abbott Laboratories at the annual meeting of the board on April 3. He had formerly been vice-president and treasurer.

Dr. Ernest H. Volwiler was re-elected president and general manager, and George R. Cain was re-elected executive vice-president. Elmer B. Vliet, who had been director of control, was named vice-president and scientific administrator. Three new directors were elected: Dr. Roger Adams, head of the chemistry department at the University of Illinois and consultant for Abbott Laboratories; Harold D. Arneson, president since 1946 of the Abbott subsidiaries handling export business; and Dr. Robert D. Coghill, director of research since 1946.

GEORGE R. CAIN

The new directors fill vacancies left by the retirement of S. DeWitt Clough, chairman of the board; Raymond E. Horn, president emeritus and Edgar B. Carter, executive director of research. Others who were re-elected as directors include Charles S. Downs, Edmund L. Drach, Norman A. Hansen, Dr. George R. Hazel, Edward A. Ravenscroft, Hugh D. Robinson, Floyd K. Thayer, Claud A. Thornburg, Herbert S. Wilkinson and Ferdinand H. Young.

Fine Organics Awarded Contract

Fine Organics, Inc., has been awarded a contract by the Navy Department to conduct research and development on the synthesis of organic nitrogenous substances by biochemical means.

Eaton Labs. Conference

Eaton Laboratories recently held a conference on the action of the nitrofurans on endocrine glands. The speakers included Dr. Warren O. Nelson, professor of Anatomy, University of Iowa Medical School; Mrs. Marguerite Sykes and Donald A. Clarke, of the Sloan Kettering Institute of Cancer Research in New York City; Dr. T. C. Pomeroy of the Institute of Cancer Research of Lankenau Hospital Research Institute, Philadelphia; and Dr. Charles Friedgood of Maimonides Hospital. Dr. William Stillman, director of research, and Dr. L. Eugene Daily, medical director of Eaton Laboratories, discussed the possibilities of chemically tailoring the simple nitrofuran nucleus.

JAMES F. STILES

Pfizer Dinner for Terramycin Men

Chas. Pfizer & Co. held a dinner March 19 in New York in honor of the 11 top scientists of the groups which discovered and developed terramycin. It was attended by 10 of the 11 Pfizer scientists and all eight of the original detailers who comprised the first sales force. Speakers were John L. Davenport, executive vice-president, and Thomas J. Winn, manager of the antibiotic division. Thomas G. Bradley, assistant manager, and master of ceremonies for the occasion, presented Mr. Winn with a watch, as a gift from the antibiotic division.

Those attending the dinner included officers and directors of the company, representatives of all departments, and the 50 antibiotic representatives who had just graduated from Pfizer's 11th antibiotic sales training class.

Reinitz Soap Changes Name

Reinitz Soap Corp., 36-14 35th St., Long Island City 6, N. Y., has changed its name to Duveen Soap Corp.

Named Director of Merchandising

Marjori Green has been appointed director of merchandising by Rilling Dermetics Co., according to Victor Arnao, executive vice-president. She will set up a long-range merchandising plan to include new items, new packaging and new ideas coordinating all departments to insure maximum service to stores and dealers.

To Manage Vick Canadian Plant

William A. Judd has been named manager of the new Vick Chemical Inc. plant in St. Thomas, Ontario, according to G. C. Eichhorn, president, manufacturing division, Vick Chemical Co.

WILLIAM A. JUDD

Chesebrough Plant in Australia

The Chesebrough Manufacturing Co. broke ground April 11 for its proposed 45,000 square-foot plant near Melbourne, Australia, for the manufacture of Vaseline brand products. Complete Australasian branch offices will be housed in the new plant and it will service all of Australia and exports to Eastern markets. Ralph E. Ward, who has been in charge of Australasian branch development over the past three and a half years, will direct current factory operations.

Since 1949, Australian business has expanded to such a degree that a permanent local plant was required, according to Basil L. Emery, Chesebrough vice-president.

Rosen Visting U. S.

Harold H. Rosen, American director of Artex Westerley Productos de Beleza S. A., arrived in New York on April 29 for a two-month stay in this country. While in the United States, he can be reached at 366 Fifth Ave., Suite 816, New York.

Wanna Lick

of ISCO GUM

FACTS ABOUT ISCO GUMS

Gum Arabic:
cleaned amber sorts, crushed, grained & powdered—USP & technical. Iscosol grade for quick wetting.

Gum Karaya:
sorts, crystals, & powdered—NF & technical.

Locust Bean Gum:
powdered—100 & 175 mesh—food grade.

Gum Tragacanth:
ribbon, flake & powdered—USP & Technical.

Other ISCO Products
Heavy Chemicals
Waxes
White Goods
Absorption Bases

Yes, Isco gums are widely used in the confectionery trade and in countless other industries where they have proved invaluable as adhesives, thickeners, sizing, stabilizers and stiffeners.

Isco employs new equipment, new milling procedures and new refining techniques to produce exceptionally fine gums for industry.

Among the latest developments are Iscolized Gums—readily dispersible versions of Arabic, Karaya, Tragacanth and Locust Bean which enable users to make up solutions rapidly, and eliminate presoaking.

For the best in water-soluble gums—call on Isco. Write for samples and a copy of our Isco gum booklet.

ISCO

INNIS, SPEIDEN & CO., INC.
117 LIBERTY STREET, NEW YORK 6, N. Y.

BOSTON CHICAGO CINCINNATI CLEVELAND GLOVERSVILLE PHILADELPHIA

Dr. Naves Honored by Dinner

Dr. Yves-Rene Naves, winner of the 1952 Gold Medal-$1000 Fritzsche Award which was presented to him in March at the 119th national meeting of the American Chemical Society in Buffalo, was the guest of honor at a dinner given in his honor by F. H. Leonhardt, president of Fritzsche Brothers, Inc., on March 27, at the New York Athletic Club. Dr. Naves, on temporary leave from the research laboratories of Givaudan et Cie, Geneva, Switzerland, and visiting this country for the first time, was accompanied by Ernest Durrer, executive vice-president, and Dr. Max Luthy, plant manager and vice-president in charge of production research of Givaudan-Delawanna, Inc.

Other members of the executive and technical personnel of Fritzsche Brothers participating in the testimonial were vice-presidents H. P. Wesemann, Dr. Ernest Guenther, Joseph A. Huisking and Fred Leonhardt, Jr.; John L. Cassullo, treasurer; D. A. Neary, assistant secretary; G. A. Wohlvort, comptroller; B. F. Zimmer, Edward Langenau, Dr. E. H. Hamann, Arthur Hemminger, Fred Richter and R. W. Wilmer.

Testimonial dinner to Dr. Yves-Rene Naves of Givaudan et Cie, given by F. H. Leonhardt, president, Fritzsche Brothers, Inc. Seated, extreme right, counter clockwise: Joseph A. Huisking, H. P. Wesemann, Ernest Durrer, Mr. Leonhardt, Dr. Naves, Dr. Ernest Guenther, Dr. Max Luthy, Dr. E. H. Hamann, Frederick Richter, D. A. Neary, G. A. Wohlfort, B. F. Zimmer, R. W. Wilmer, John L. Cassullo, Fred H. Leonhardt, Jr., Arthur Hemminger and E. E. Langenau. Dr. Naves is the 1952 Gold Medal-$1000 Fritzsche Award winner.

Denison with Parke, Davis

A. G. Denison has been appointed director of labor relations of Parke, Davis & Co., according to Harold K. Daniels, personnel relations director.

A. G. DENISON

Elected to Soc. of Perfumers

Mrs. Mysie Emmet, de Laire Division, Dodge & Olcott, Inc.; David E. Bowlus, E. I. duPont de Nemours & Co. Inc.; Harry C. Saunders, Bush Aromatics division, Dow Chemical Corp.; and Elmer L. V. Sulik, van Ameringen-Haebler, Inc., were elected to the membership of the American Society of Perfumers, Inc., at the April 16 business meeting in New York.

McNeil, Director Sclerosis Soc.

Robert Lincoln McNeil, president of McNeil Laboratories, has been elected to the board of directors of the National Multiple Sclerosis Society.

Czermak, Breon Gen. Sales Mgr.

Charles L. Czermak has been appointed general sales manager of George A. Breon & Co., according to Frederick O. S. Spencer, vice-president in charge of sales, and will supervise distribution of the company's medicinal products to physicians, hospitals, and the retail and wholesale drug trade.

CHARLES L. CZERMAK

Johnson Appointed by Parke, Davis

Leonard E. Johnson has been appointed branch house superintendent of Parke, Davis & Co., according to Graydon L. Walker, director of U.S. and Canadian sales. He will have charge of improvements and new construction at Parke-Davis' 30 branches in the United States and Canada. Mr. Johnson succeeds A. R. Bostock who died of a heart attack on March 24.

Norda Receives Award of Merit

Norda Essential Oil & Chemical Co., Inc., for the second time in two years, won an award in the tenth annual competition of the Associated Business Publications for outstanding excellence in advertising. The company received an Award of Merit in Division 2, in which more than 500 entries appeared among the chemical, fabric and food advertisers. The award citation to Norda read, "Interesting approach. Effective use of color, adapted in each ad to flavor being advertised. Good continuity."

Other winners in the same division were du Pont, Glycerine Producers' Association and Koppers Company.

Norda's 1951 advertising campaign, as in 1950, was handled by R. Ralph Bennett, vice-president and creative director of Fred Gardner Co., Inc., advertising agency. E. E. Benedict, advertising manager of Norda, accepted the award for his company at a luncheon in Boston on April 8, as did Mr. Bennett, for the agency.

Lever Appointments

William Dodenhoff has become brand manager for Pepsodent tooth pastes; Robert Benson, cooperative advertising manager; and Freeman Jackson, assistant national field supervisor, according to Charles T. Lipscomb, Jr., president of the Pepsodent division of Lever Brothers Co.

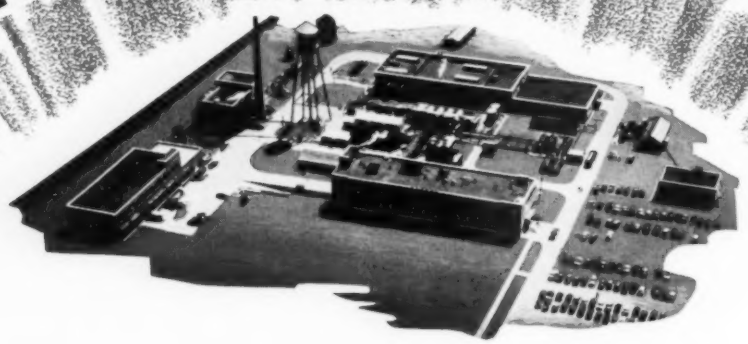
Miss Bachofner Promoted by Ciba

H. Elizabeth Bachofner has become technical assistant to Dr. Werner H. Fischer, vice-president in charge of production of Ciba Pharmaceutical Products, Inc.

. . . and now Heyden NEOMYCIN in BULK

through

100% PLANT EXPANSION!



Steadily increasing demands for Heyden Penicillin and Streptomycin products - - and now - -

NEOMYCIN SULFATE

have necessitated *doubling* our plant facilities at Princeton, N. J. A group of 5 new buildings, plus greatly expanded laboratory and research activities, will make possible a 100% increase in antibiotics production.

Heyden Chemical Corporation is a pioneer in the commercial production of NEOMYCIN - - and bulk purchasers of Neomycin Sulfate, Penicillin and Streptomycin may rely upon this dependable source of supply with greater assurance than ever - - knowing that Heyden's up-to-the-minute manufacturing methods, exacting technical supervision, and intimate attention to your specific needs are vital factors in winning and holding new business.

HEYDEN ANTIBIOTICS AVAILABLE IN BULK FORM

NEOMYCIN SULFATE . . . sterile and non-sterile forms, in bulk.

High-potency Penicillin, in hermetically sealed jars of 500 million units, 1 billion units, and drums. Special sizes on order.

Crystalline Procaine Penicillin G, Regular or Micropulverized, sterile.

Crystalline Penicillin G Potassium, sterile.

Crystalline Penicillin G Sodium, sterile.

Crystalline Penicillin G Potassium, tablet grade.

Streptomycin and Dihydrostreptomycin in bulk, for formulations in ointments, etc., available in 1 kilogram containers.

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Packaged forms (Vials) of Heyden Penicillin, Streptomycin and Dihydrostreptomycin are also manufactured in all popular dosages, as well as Tablets (buffered and soluble) and Troches of Penicillin, sealed in foil.

Write for your copy of the new Heyden Neomycin brochure. Full particulars on this important Heyden antibiotic are promptly available.

FINE HEYDEN CHEMICALS

HEYDEN CHEMICAL CORPORATION

393 Seventh Avenue, New York 1, N. Y.

Heads Retail Sales Division

Charles C. Wood has been appointed manager of the retail sales division of Winthrop-Stearns Inc. and has been replaced in his old position of manager of the professional service office in Seattle by K. V. Thoreen, special hospital representative of the firm in the Seattle area.

CHARLES C. WOOD

Form Pharmaceutical Advg. Club

Advertising directors of pharmaceutical and related concerns in the Philadelphia area have formed the Philadelphia Pharmaceutical Advertising Club. The group will meet once a month to discuss advertising problems relating to the pharmaceutical industry.

Among those who attended the first two meetings are Seldon Whitaker, J. Bishop & Co.; Robert Durst, Jr., S. F. Durst & Co.; Laurence S. Whyte, J. B. Lippincott Co.; John Hogan, McNeil Laboratories, Inc.; H. H. Fehr, Mulford Colloid Laboratories; Joseph Shore, A. J. Parker Co.; William G. Burns, Raymer Pharmacal Co.; Tobias Wagner, Smith, Kline & French Labs.; R. Lohrberg, Henry K. Wampole & Co., Inc.; Paul Robinson, Sharp & Dohme, Inc.; Robert Neal, National Drug Co.; and A. Douglass Brewer, Wyeth Inc.

A. G. Lilla Named Kessler Agent

The A. G. Lilla Company has been appointed agent for Kessler Chemical Co., Inc. and will handle the San Francisco area.

New Robins Plant

The A. H. Robins Co. has broken ground for the foundation of a new plant on Cummings Drive, Richmond, Va., which will bring together manufacturing, warehousing and office operations which have outgrown their earlier quarters and are now carried on in separate buildings. The headquarters is scheduled for completion late in the fall of 1952.

Smith-Dorsey Executive Changes

W. H. Walker has been promoted to division manager of the Smith-Dorsey division of the Wander Co., while E. A. Bergfeld, formerly division manager, has been transferred to the Dallas division, and Elmer Cothran, Dallas manager, has become assistant sales manager at the Lincoln, Neb., office.

E. A. BERGFELD

Wood Named Canadian Distributor

W. Lloyd Wood, Ltd., Toronto, has been appointed exclusive distributor for Lady Esther in the Dominion, according to Dr. Joseph Schultz, president. The Wood organization will work in close cooperation with Milton Samuels, Lady Esther's supervisor of sales. The manufacturing capacity of the Lady Esther plant in Toronto, under the management of Peter Hutton, will be enlarged considerably, according to Dr. Schultz, to meet the expected increase in business volume resulting from an extensive sales campaign which will start immediately.

Abbott Awards to Scientific Staff

Abbott Laboratories awarded certificates of merit to six members of its scientific staff at the seventh annual dinner of the research, development and control departments on March 20. Those who received the certificates were Morris Freifelder, chemist in the organic research department; Robert L. Jones, biochemist in the organic reserch department; Robert L. Jones, biochemist in the development laboratory; Geoffrey I. Gleason, chemist in the radioactive pharmaceutical department; Abraham I. Kremens, chemist in the pharmacy department; John C. Moetsch, biologist in the bioassay laboratory; and Dr. Laurence W. Roth, assistant head of the pharmacology department.

The certificates were presented by Edgar B. Carter, executive director of research, and Dr. Robert D. Coghill, director of research. Others on the program were Dr. Ernest H. Volwiler, president and general manager, and Elmer B. Vliet, director of control.

Film Sponsored by Squibb

"Promoting the Prescription Department," a slide film sponsored by E. R. Squibb & Sons, and the latest addition to the American Drug Store Training Film Series, has been produced by the Audio-Visual Service of the City College School of Business, New York. It is being introduced to the spring club meetings of 9 regional groups of the National Wholesale Druggists' Association, having started with the South Atlantic Club, Atlanta, Ga., on May 3.

E. Claiborne Robins, president of A. H. Robins Co., breaking ground for foundation of company's new plant on Cummings Drive, Richmond. E. Claiborne Robins, Jr. is holding pick as Lora Elizabeth and Ann Carol (right) look on. Front row, at left, Dr. William R. Bond, medical director; right, John E. Slater, plant manager and purchasing agent. Other Robins executives, as well as plant designers and contractors are in the background.

Waters Promoted by Vick Chemical

Richard D. Waters, assistant general manager of Vick Products division, Vick Chemical Co., has been appointed vice-president of that division, according to Kirby Peake, division president.

RICHARD D. WATERS

New Denver Branch for Squibb

E. R. Squibb & Sons is opening a branch headquarters at Denver, according to J. J. Toohy, vice-president and general sales manager, which will serve the medical and pharmaceutical professions of Colorado, Utah and much of Wyoming, Idaho and New Mexico. A new one-story building to be constructed at 4900 Jackson St. will house both regional sales offices and branch warehouse. Arrangements for late fall occupancy have been completed by George H. Sibley, Squibb vice-president and general attorney.

The new building will contain 20,000 square feet of floor space of which the major share will be used for the warehousing of the company's anesthetics, antibiotics and other medical and pharmaceutical products.

CSC Appointments

John A. Frump and Gerald R. Wagner have been appointed research chemists of the research and development division of Commercial Solvents Corp., according to T. S. Carswell, vice-president. Leo P. Allen has been employed as a microbiologist, and Fred L. Walter has been appointed to the Analytical department as a chemist.

MM&R Dinner for Cornehls

Herbert Cornehls, of Cornehls and Bosse, agents for Magnus, Mabee and Reynard, Inc., was guest of honor at a dinner held by that company in March at the Manhattan Club in New York. Mr. Cornehls visited the United States to get first-hand information of MM&R foreign operations.

P. Herman to Represent Synfleur

P. Herman Co., 637 Craig Street W., Montreal, has been appointed exclusive agents in Canada of Synfleur Scientific Laboratories. Phil Herman is general sales manager of the company.

PHIL HERMAN

Lakeside Management Meeting

Lakeside Laboratories, Inc. held a field management meeting in Milwaukee during which Evan P. Helfaer, president, outlined to management members the progress reports and plans for the rest of this year.

Missouri Drug & Chem. Luncheon

McCune Gill, president of the Title Insurance Corp. of St. Louis, was the guest speaker at the luncheon meeting of the Associated Drug and Chemical Industries of Missouri on April 9. He talked on the subject, "St. Louis Historic Places."

Head New Winthrop-Stearns Offices

E. T. Meyers has been appointed manager of the new Raleigh, N. C. office which Winthrop-Stearns recently opened as the sales headquarters in the surrounding area, according to Joseph G. Noh, vice-president and director of sales. Formerly attached to the company's Baltimore division, Mr. Meyers will supervise a staff of 15 professional service representatives who will call on physicians, drug stores and hospitals in the area. Territory covered by the new branch includes all of North Carolina and parts of Virginia, West Virginia and Tennessee.

D. W. Ripley will manage the new professional service office which opened April 1 in Denver. The territory covered by this office includes all of Colorado, New Mexico and Utah, and parts of Idaho, Nebraska, Nevada, Texas, Arizona and Wyoming.

Join Dermetics Sales Staff

John P. Sutherland has been appointed district manager for Dermetics in Ohio, West Virginia, Kentucky and Michigan. Vivienne Mangerie has become Sutherland's assistant. Both had formerly been with Elizabeth Arden. George W. Sheplee, previously with Evyan Parfums, has become district manager for New England and most of the East Coast for Dermetics. John F. McTigue has resigned from Helena Rubinstein to serve as district manager for seven of the middle and western states.

MM&R Dinner in honor of Herbert Cornehls of Cornehls and Bosse, Magnus agents in Hamburg, Germany, which was held in March. Counter-clockwise, beginning at extreme right, are: R. B. Magnus, vice-president, MM&R; G. H. McGlynn, treasurer; P. C. Magnus, president; Mr. Cornhels; Dr. H. F. Logcher, export manager; J. B. Magnus, vice-president; Pinfang Hsia, export department; Fred Loeser, order and billing department; L. Santi, assistant to export manager; D. Bellavigna, superintendent; G. Hedstrom, head of analytical laboratories; S. C. Gamage, N. Y. representative; M. S. Barker, N. Y. representative; Milton Stern, assistant sales manager; W. F. Fischer, sales manager; F. C. Cummings, comptroller; and A. H. Downey, technical director. Mr. Cornehl visited the United States in order to obtain first-hand information on Magnus, Mabee & Reynard foreign operations.

Sheffield Tubes... DESIGNED TO SERVE

Boyle & Company's Zalben, a non-greasy specific for relief of fungus infections, is a product and package typical of a straightforward utility.

For year-in, year-out volume in many steady-selling items such as Zalben, Boyle & Company prefer to package with dependable, uniform Sheffield collapsible tubes.

You buy the knowledge and judgment of over a half-century of tube-packaging experience when you order *Sheffield Process* tubes. For full information, without obligation, call on your nearest Sheffield representative.

SILVER ANNIVERSARY

Sincerest congratulations from Sheffield Tube to Boyle & Company on the occasion that marks their 25th year of dependable service to the drug industry.

THE SHEFFIELD TUBE CORPORATION

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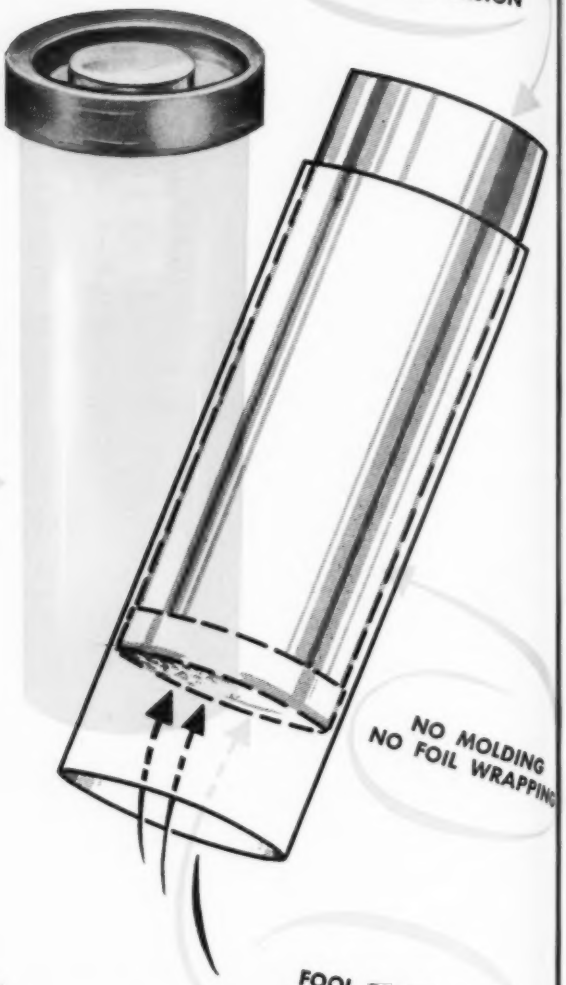
PERFUME FLACONS PURSE DISPENSERS

Presents

RICHFORD PUSH UP

GOLDEN METAL PURSE STICK CONTAINER



PUSH UP is another Richford-engineered container — designed for beauty, practicality, and economy.

Made in 3 purse sizes.

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Fragrance Found. Annual Meeting

The Fragrance Foundation held its third annual meeting April 24 in the Cotillion Room of the Hotel Pierre, with Samuel Rubin, president of the organization, and president of Faberge Perfumes, giving the opening address. Arthur A. Schmidt, vice-president of Public Relations Management Corp., discussed the progress of the Foundation during these three years. Dr. Elinor Barnes, assistant director of the Marketing and Social Research division of the Psychological Corp., spoke on "What a psychological study of consumer habits can mean to the fragrance industry." Frazer V. Sinclair, BEAUTY FASHION, gave the financial report for the calendar year of 1951 and reported on the finances for the first three months of 1952. Miriam Gibson French, executive director of the Foundation, reported on the activities of the organization for the past year and thanked members of the press for their continued cooperation.

During the meeting the following officers and directors were elected for the coming year: Mr. Rubin, president; H. Gregory Thomas, Chanel, Inc., re-elected vice-president; Mr. Sinclair, re-elected treasurer; and A. L. van Ameringen, van Ameringen-Haebler, Inc., re-elected secretary. Named as directors for three years were Jean Despres, Coty, Inc.; J. I. Poses, Parfums D'Orsay; Russell Rocks, Avon Products, Inc.; and John Wilde, Caron Corp. Joseph Danilek, Mary Chess, Inc., was elected a director for two years, and Richard Salomon, Charles of the Ritz, and F. E. Shoninger, Antoine Chiris Co., Inc., for one-year terms.

Officers and directors of Fragrance Foundation who attended 3rd annual meeting on April 24. Left to right: J. I. Poses, Parfums D'Orsay; John Wilde, Caron Corp.; Jean Despres, Coty; H. Gregory Thomas, Chanel; F. E. Shoninger, Antoine Chiris; Samuel Rubin, Faberge; H. L. Brooks, Alexandra de Markoff; Pierre Harang, Houbigant; Frazer V. Sinclair, BEAUTY FASHION; J. S. Wiedhopf, Parfums Ciro; Benson Storfer, Parfums Corday; and S. L. Mayham, executive vice-president, the Toilet Goods Association.

Jackson Elected V.P., Robins

Dr. Eugene L. Jackson, medical director of the A. H. Robins Co., has been elected a vice-president, according to E. Claiborne Robins, president. He will continue his duties as medical director.

DR. EUGENE L. JACKSON

New Parke, Davis Depot in Miami

Parke, Davis & Co. last month opened a new depot in Miami to provide better and faster service to physicians and pharmacists in Florida. The official opening was held in connection with a regional conference of about 75 salesmen and medical service representatives at the McAllister Hotel on April 18 and 19. Attending the opening were Graydon L. Walker, director of U. S. and Canadian sales; Carl Johnson, U. S. sales manager; Dr. E. A. Sharp, director of clinical investigation; Frank H. Nelden, manager of medical sales education; Walter L. Griffith, manager of professional promotion; Fred H. Thistlethwaite, manager of hospital and biological sales; and H. B. Rames, manager of chain store sales.

Kay Daumit Appointments

William H. Gaines has been appointed field sales manager for the eastern region, and Paul Mabrey, for the western region, of the Kay Daumit division of Colgate-Palmolive-Peet Co., according to Howard P. McClure, sales manager.

WILLIAM H. GAINES

Bymart Enters Canadian Market

Bymart-Tintair, Inc. has entered the Canadian market in its first expansion outside of the United States, according to Phil Kalech, executive vice-president, who stated that Phel-Wood Distributors, Ltd. of Toronto, will manufacture and distribute to wholesalers and retailers in the Dominion the complete line of Tintair products.

Phel-Wood will be headed by William J. Phelan, who until recently was cosmetics buyer for F. W. Woolworth Co., Ltd. J. M. Inwood will be associated with him.

Dr. Snell to Receive Scroll

The Fourth Annual Honor Scroll Award of the New York Chapter of the American Institute of Chemists will be presented this year to Dr. Foster Dee Snell, president of Foster D. Snell, Inc., at a dinner meeting in the Hotel Commodore, New York, May 22. Dr. Gustav Egloff, director of research of the Universal Oil Products Co., will speak on "Foster D., As I Know Him," and Mr. Karl M. Herstein, Herstein Laboratories and chairman-elect of the New York section, will present the Scroll.

Esco-Foster Representatives

Paul E. Roehrich and Eugene J. Moore, president and vice-president, respectively, of the Richford Corp., have been appointed eastern sales representatives of the new firm, Esco-Foster, recent purchasers of Theodore W. Foster & Bro. Co., of Providence, R. I.

Closures, Inc., formerly an exclusive supplier to Richford, is entering the field with its own line of brass and aluminum closures.

Pine Needle Fragrances That Last and Last

Research is a wonderful thing,
and here is one reason why:

For many years, a common problem with Pine Needle products has been their lack of odor permanence. Synfleur research has now solved that problem.

Our laboratories have developed several new aromatic chemicals which have made possible Pine Needle perfume oils that retain their Pine Needle character over a much longer period of time.

Pine Needle fragrances—with lasting qualities unobtainable before—are now ready for you from Synfleur.

Why not do a little of your own research? Write us for a sample and further information about the new longer-lasting Synfleur Pine Needle Perfumer Oils

Synfleur Scientific Laboratories, Inc. *Monticello, N.Y.*

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SKF Medical Art Collection

Through the support of Smith, Kline & French Laboratories, the Philadelphia Museum of Art has assembled a unique collection of medical art by the masters, from Rembrandt and Goya to Daumier and Toulouse-Lautrec. The 85 prints, known as the Smith, Kline & French Collection, are called "Ars Medica," or The Healing Arts. After a special preview for doctors and museum members, the exhibition was opened to the public during the middle of April and extends through May 25 at the museum.

Through an SKF grant made three years ago to the Museum, Carl Zigrosser, Curator of Prints, assembled rare pieces of graphic art on medical subjects, from this country and abroad. The earliest piece of art in the collection is a silver drachma from the island of Cos, of about 150 B.C. portraying a head of Asklepios, the Greek god of medicine. The heaviest emphasis in on the 16th through 19th centuries. Work by contemporaries is not included.

Special color television ceremony last month during which SKF Labs. presented collection of medical art to Philadelphia Museum of Art. Carl Zigrosser, Museum's Curator of Prints, is describing Rembrandt's portrait of Dr. Ephraim Bonus and Gillray's etching of the tortures of gout. Looking on are Fiske Kimball, center, director of Museum, and Francis Boyer, SKF president, who presented the collection. The men are all wearing collar microphones.

Miss Rowland, Shulton Advg. Mgr.

Maxine Rowland has been appointed advertising manager of Shulton, Inc., succeeding Elizabeth Shenkin who resigned April 1.

MAXINE ROWLAND

USI moves Head Office

U. S. Industrial Chemicals Co., division of National Distillers Products Corp., has moved its head office from 60 East 42nd St., to 120 Broadway, New York 5. This move does not affect the New York sales division which remains at 33 West 42nd St.

Parkhurst, Emerson Sales Mgr.

Leslie E. Parkhurst has been appointed sales manager of the Emerson Drug Co., according to F. Jackson Andrews, president.

Denton Appointed by Calco

Dr. J. J. Denton has been appointed assistant director of chemical research in charge of the pharmaceutical section at the Calco Chemical division of American Cyanamid Co., to succeed Dr. R. P. Parker, recently advanced to director of chemical research.

Spirer with Sonneborn

Lawrence Spirer, formerly with S. D. Leidesdorf & Co., has joined the executive staff of L. Sonneborn Sons, Inc.

LAWRENCE SPIRER

Maynard Named Chief Accountant

Dudley E. Maynard has been appointed chief plant accountant of Winthrop-Stearns Inc., according to Dr. A. E. Sherndal, and will be in charge of general and cost accounting functions relating to Winthrop's manufacturing and administrative operations in Rensselaer.

Wallach with Baker

John M. Wallach has joined H. J. Baker & Bro., having formerly been assistant traffic manager with the Chilean Nitrate Sales Corp.

Parke-Davis Branch in Puerto Rico

Parke, Davis & Co. has established a new branch at Santurce (San Juan), serving Puerto Rico, the Domican Republic, Haiti and the Virgin Islands. The company now has nine branches and laboratories in foreign countries, with W. R. Jeeves, director of overseas operations, in charge. Michael F. Stevenson has been named manager of the new Puerto Rico branch, where plans for additional expansion at some future date are under study.

Voigt on Foreign Trip

Werner R. Voigt, vice-president of Wyeth International Limited, has departed by air on a four-month tour of European and Far Eastern markets for the international division of Wyeth Inc. He will call on distributors in those countries in which the company is represented and choose others to represent Wyeth pharmaceuticals in those areas where no arrangements are in effect.

Miss Young with Lady Esther

Gladys Young has been appointed Pacific Coast sales representative by Lady Esther, Ltd., for their line of face powders and makeup creams. Her territory will include California, Oregon and Washington.

Updegraff with Q-Tip Sales

William H. Updegraff, formerly sales manager of Tangee Cosmetics for the George W. Luft Co., has been appointed assistant to the vice-president in charge of sales of the Q-Tips Sales Corp., according to C. J. Gerard, vice-president.

ROBERT A. PHAIR

PAUL H. KOHNSTAMM

WILLIAM H. NELSON

Kohnstamm Appointments

Robert A. Phair has become a vice-president of Kohnstamm & Co., Inc., according to Louis J. Woolf, president and chairman of the board. Paul Kohnstamm, son of the late president, succeeds Mr. Phair as secretary. Additional appointments include those of Robert H. Pulver, who has been named a member of the board of directors and will manage the company's midwestern sales operation, and William H. Nelson, who has become assistant secretary.

Taylor Named Training Director

Seymour Taylor, former assistant training director and supervisor of the *Pfizer Salesmaker*, weekly organ for Pfizer professional service representatives, has become training director, and will continue to edit the staff publication. Thomas W. Guinivan has joined the Brooklyn headquarters staff and will assist Mr. Taylor. He had formerly been Pfizer representative in Washington, D. C. John Boland has been promoted from special hospital representative to district manager in charge of the territory including Rhode Island, Connecticut, western Massachusetts and Westchester County, N. Y. James A. O'Toole has also been promoted from hospital representative to district manager and will supervise activities in the district centering in Newark. John Weaver, previously special hospital representative in Miami, will supervise the new sales district for the Hawaiian Islands and will have his headquarters in Honolulu.

Appointed V.P.'s of Vick Internat.

G. B. McClure and W. V. Reynolds, formerly regional directors of Vick International, a division of Vick Chemical Co., have been appointed vice-presidents, according to E. P. Anderson, president.

Dr. Nabenhauer Appointed by SKF

Dr. Fred P. Nabenhauer, research scientist in the organic chemistry section of Smith, Kline & French Laboratories, has been appointed director emeritus of organic chemistry, according to W. F. Thompson, vice-president of research and development. This will permit him to pursue freely research of his own choosing, while at the same time he will serve as a senior scientific advisor to the members of the research and development division.

Appointed by Merck

D. H. McCondichie has been appointed plant engineer of Merck's proposed Flint River plant, for which ground will be broken shortly, and John Pierson has been named personnel manager, according to Hubert N. Fiaccone, plant manager.

Both men will assume their new positions and become residents of Albany, Ga., some time after July 1, although they will be working on plans for the plant from now until that time.

Dermetics Export Div. for S.A.

Albert J. Rosado has been appointed to open up general commercial expansion for Rilling Dermetics in Latin America. Last month he visited Panama, Venezuela, Columbia, Peru, Ecuador, Mexico and Cuba and is expected to name distributors for the company in each of these countries with a view toward the eventual possibility of a branch office in Mexico City or Havana.

Joins Heyden Market Staff

Lee Stuart, formerly with the National Lead Company and the National Security Industrial Association, has joined the Market Development department of Heyden Chemical Corp. Dr. G. M. Sieger has been transferred from the research department to the market development department.

Kremers-Urban Elections

Ray A. Johns, Robert J. Kremers and C. O. Miller were re-elected to the board of directors of Kremers-Urban Co. at the annual meeting on April 15. The following officers were re-elected at a later meeting: C. O. Miller, chairman of the board; Ray A. Johns, president; Robert J. Kremers, secretary-treasurer; J. T. Clancy, vice-president in charge of production; and David Sutton, vice-president in charge of domestic sales. Walter E. Werwath was elected vice-president of the company's export and international organization.

Join CSC Research Staff

The following men have been added to the staff of the research and development division of Commercial Solvents Corp., according to T. S. Carswell, vice-president: Homer D. Tresner, as microbiologist; Manfred F. Mattisson, a literature searcher; and Robert D. Carpenter, as a research chemist.

DeLamar-Hendrey Changes Name

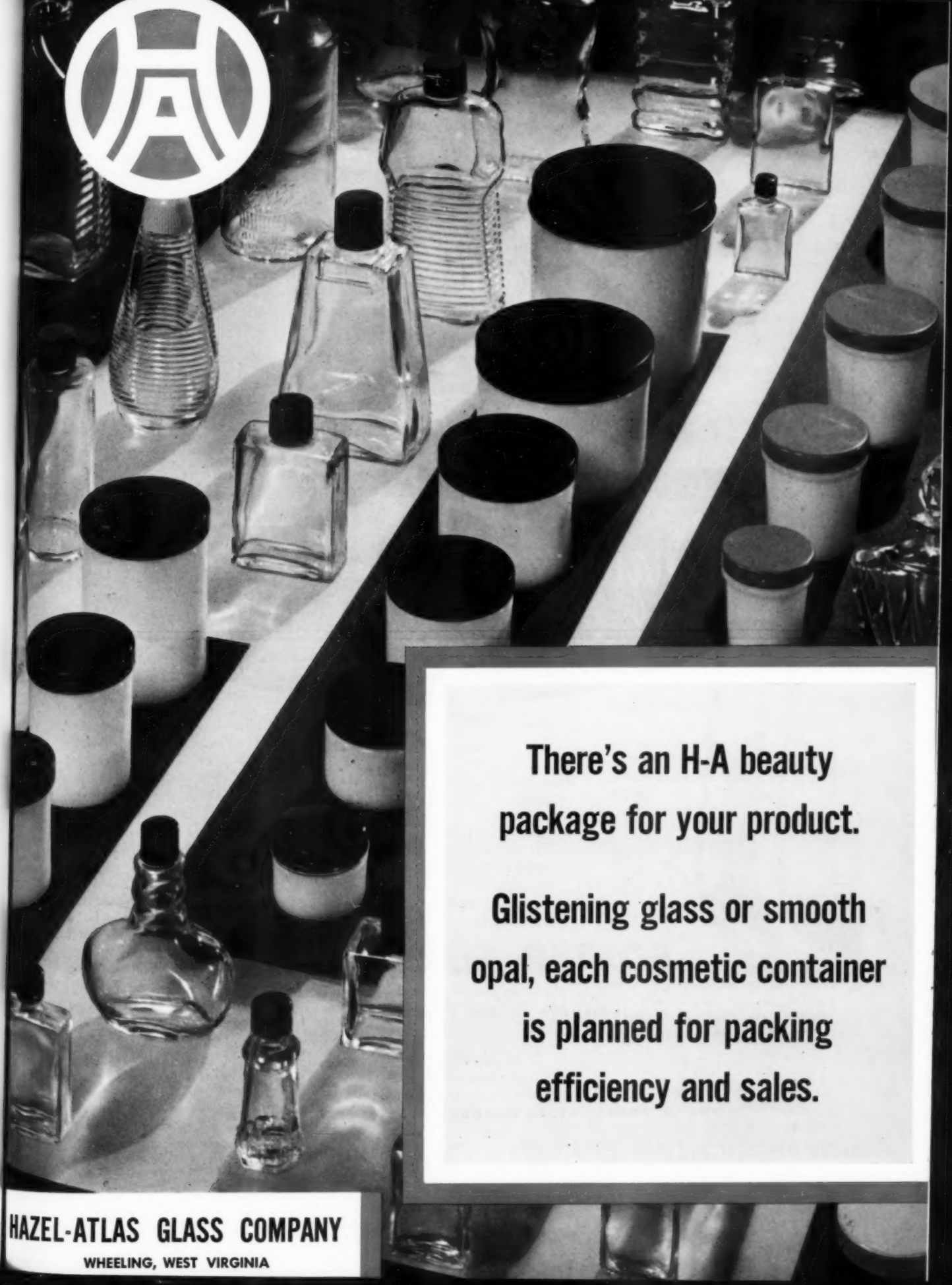
DeLamar-Hendrey Chemical Co., Inc. of 461 W. Erie Street, Chicago 10, has changed its name to DeLamar-Hendrey, Inc. Officers of the company remain Dr. W. B. Hendrey, Robert DeLamar and Annette DeLamar Brizzie.

Cohen in Animal Nutrition, CSC

I. Roy Cohen has been named advertising manager for the animal nutrition division of the Commercial Solvents Corp., according to Abbott K. Hamilton, vice-president of product divisions.

Vliet Elected Abbott V.P.

Elmer B. Vliet, director of control at Abbott Laboratories, has been elected vice-president and scientific administrator by the board of directors.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Glistening glass or smooth
opal, each cosmetic container
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efficiency and sales.
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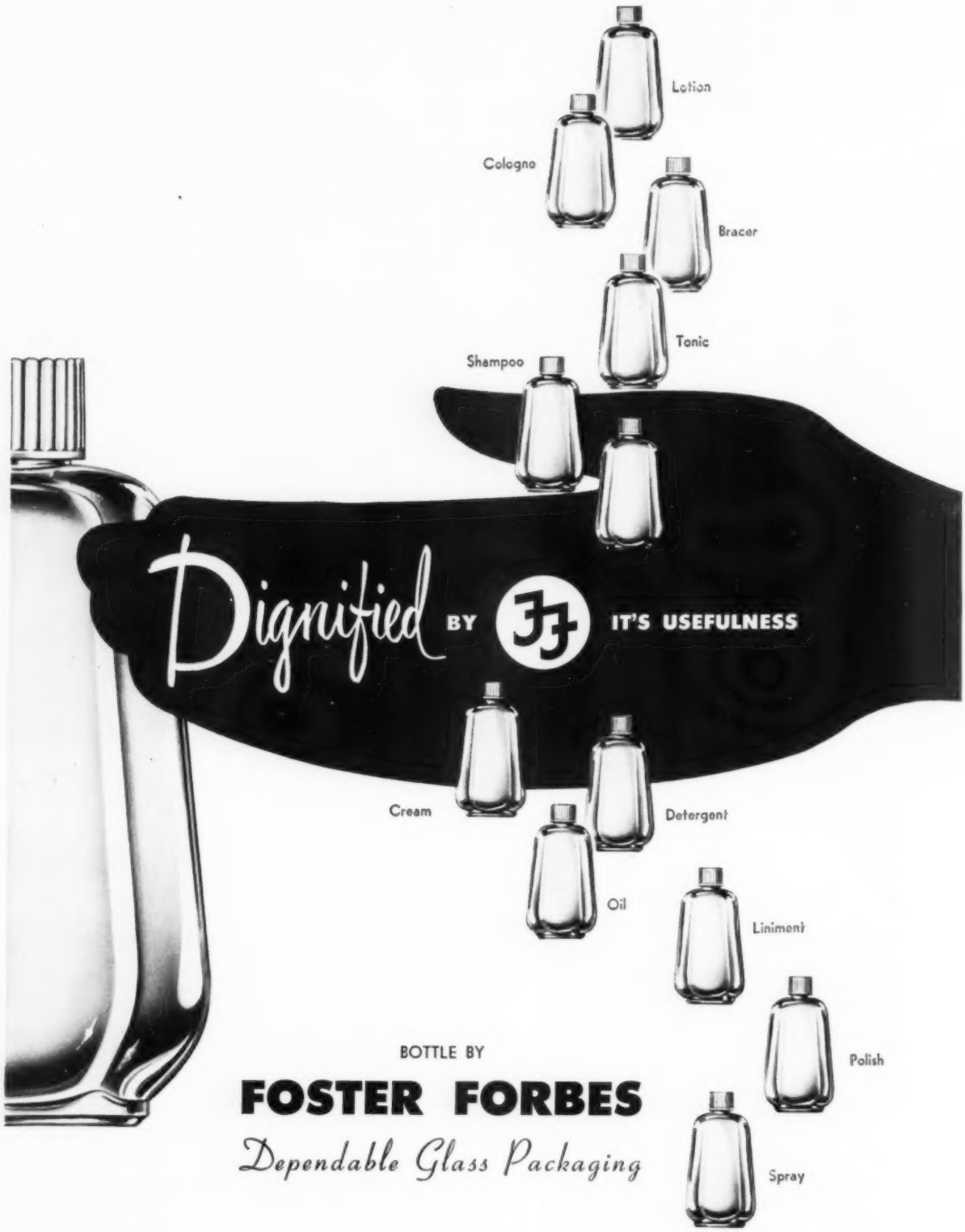

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FOSTER FORBES GLASS COMPANY . . . . MARION, INDIANA

SALES OFFICES: Kansas City • Detroit • Chicago • Cleveland • Milwaukee • Cincinnati
Louisville • Saint Louis • Indianapolis • Saint Paul • New York • Memphis • Havana, Cuba

Stock Named Mathieson Div. Head

Fred J. Stock has been named general manager of the newly created intermediates division of Mathieson Chemical Corp., according to Russell Hopkinson, vice-president and general manager of the organic chemical department. He had formerly been vice-president in charge of sales of Chas. Pfizer & Co. for seven years.

Admitted to Amherst College

Richard Fourman, son of Dr. and Mrs. Victor Fourman, has been admitted to Amherst College which he will attend in September. He is graduating this Spring from the Forest Hills High School, where he was editor of the school paper and president of the General Students Organization.

Angst Resigns from Allied Labs.

C. N. Angst recently resigned as treasurer of Allied Laboratories, Inc. after completing sixteen years in office, and has been succeeded in that post by J. L. McKeen of the Kansas City office. Mr. McKeen was also elected executive vice-president, a new office. J. T. Cahill was elected an assistant secretary.

Mr. Angst will continue to serve as a member of the board of directors.

Named V.P., Norwich Pharmacal

Norman J. Burd has been elected a vice-president of the Norwich Pharmacal Co. and will be in charge of coordinating activities of the production, materials handling and engineering departments. John T. Horan was elected secretary and Carlton P. Jones, assistant secretary.

DeLaire Awarded Legion of Honor

Francois de Laire, director general of Fabriques de Laire, Paris, has been awarded the Legion of Honor France for distinguished service to industry. He was cited as "Chevalier de la Legion d'Honneur" both for his outstanding record as an Industrialist and as the "President de Syndicat Professionnel."

Condon With Bostwick

Joseph L. Condon, Jr. has become assistant general sales manager of Bostwick Laboratories, Inc., where he will be in administration, merchandising, sales promotion and field sales management, with particular emphasis on drug operations. He had previously been associated with International Latex Corp.

With Helene Curtis Sales Staff

George D. Crittenton has become merchandising manager of Helene Curtis Industries, according to L. A. Sauers, sales manager, and James Mahoney has been named sales supervisor.

GEORGE D. CRITTENTON

Heesch Named Sales Supervisor

Herbert J. Heesch has become field sales supervisor of Hooker Electrochemical Co., according to R. E. Wilkin, general sales manager, and will be responsible for coordinating the activities of field salesmen and district sales managers. He will make his headquarters at Niagara Falls.

Pendergast Elected a Director

Edward M. Pendergast has been elected to the board of directors of GG Inc. and Gini Products Inc., distributors and manufacturers, respectively, of Pinwae Pincurl Home Permanent.

Join S & D Research Staff

Dr. Alfred A. Tytell and Charles J. Wiley have joined the research staff of Sharp & Dohme, Inc., according to Dr. L. Earle Arnow, director of research. Mr. Tytell will do research work in antibiotics, and Mr. Wiley will work in chemical development.

With Sterling-Winthrop Institute

Dr. Arthur L. Beyler has been appointed to the staff of the biology division of the Sterling-Winthrop Research Institute, according to Dr. M. L. Tainter, director. He will head the newly established Endocrinology laboratory.

Probst Leaves Md. Pharm. Co.

Stanley Probst resigned from the presidency of the Maryland Pharmaceutical Co. May 1. He is a member of the executive committee of the Proprietary Association from which he has also tendered his resignation.

Steinfels Visiting Kolmar Plants

Daniel Steinfels, one of the top chemists of Kolmar Laboratories at Paris, France, will spend about four months studying the latest techniques in the Milwaukee plant, as well as the Canadian and Port Jervis, N. Y., plants.

Giles to Retire from Barbasol

I. V. Giles plans to retire as chief chemist of the Barbsasol Company on July 1.

Carswell Named Evyan Rep.

J. Stuart Carswell has been appointed district sales manager for the southeastern territory of Parfums Evyan, Inc., including Louisiana, Mississippi, Alabama, Georgia, South Carolina and Florida. He had formerly been sales manager of the southwestern territory for Hazel Bishop, Inc.

Foragers Annual Outing

The Foragers of America will hold their annual outing on June 21 at the New York Athletic Club, Travers Island. A feature of the event will be the all-you-can-eat beefsteak jamboreee.

Mendoza Named Chiris Sales Mgr.

Robert L. Mendoza has been appointed sales manager of Antoine Chiris Co., Inc., according to F. E. Shoninger, president.

Hinde & Dauche Booklet

The Hinde & Dauch Paper Co. has released an illustrated booklet, "How to Use Holiday Corrugated Boxes," which provides ideas for improving holiday sales with seasonal packaging. The booklet is available on request.

Hussey B. Johnson

Hussey B. Johnson, 81, one of the founders in 1903 of the Zemmer Co., died April 4 in Pittsburgh. He had been president of that company since 1933. An original member of the American Pharmaceutical Manufacturers' Association, he had served as a director and as a vice-president in 1930. He is survived by his wife, Mrs. Lida Johnson and two daughters, Mrs. Charles Lennox and Mrs. William M. Addenbrook.

Francis Joseph McCarthy

Francis Joseph McCarthy, manager of the Boston office, Dodge & Olcott, Inc., and associated with that company since 1909, died April 21.

HEADACHES are TABOO

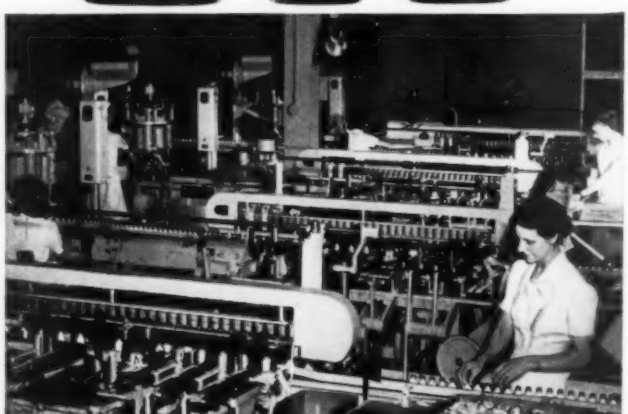
when BAYER aspirin and PNEUMATIC machines go to work

WHEN a headache or pain plagues you, chances are you chase it—and fast—with famous Bayer Aspirin. You and millions of others! That means a big volume packaging job for STERLING DRUG, INC. who make and market this popular remedy.

Like other leaders in the pharmaceutical field STERLING avoids annoying and expensive production headaches by capping and labeling with Pneumatic machines. Day in and day out their Pneumatic equipment does the job with smooth running, unfaltering efficiency. You'll start to save money, too, from the very first day you employ Pneumatic machines to perform at "lower cost per container" in your plant.

★ ★ ★

PNEUMATIC SCALE CORP., LTD., 70 Newport Ave., Quincy 71, Mass. *Branch Offices: New York; Chicago; San Francisco; Los Angeles; Seattle; Leeds, England.*



Installation of Pneumatic Labeling and Capping equipment at The Bayer Co., Division of Sterling Drug, Inc., Trenton, New Jersey.

PNEUMATIC

PACKAGING AND BOTTLING MACHINERY

Management Forum

by Francis Chilson

INDUSTRIAL CONSULTANT

Employee Information

Shortly after I had written of the desirability of providing your employees with concise factual information about every aspect of your business, I picked up a brochure published by U. S. Rubber Co. This is the best job I have seen to date. The booklet starts off with the profit and loss statement for the preceding year. On the opposite page is a statement broken down into percentages of the use to which every sales dollar is put: the amount paid out for materials, labor, taxes, plant operating overhead expense, officers, salaries, etc.

When employees read that Mr. Bigshot, the president got a hundred and fifty grand a year it sounds like a pile of money but when they are made to realize that Mr. Bigshot's salary, together with all the salaries of all the officials and executives put together amounts only to a fraction of a penny per dollar of income, and when, further, they compare this small percentage with labor's large share of the dollar income, they can't say that the reason they are not getting higher wages is that the high brass gets all the dough.

This is good rebuttal to the communist doctrine, persistently pushed, that labor is being ground down because the Bigshots get all the dough and labor gets robbed of its just share.

The brochure then shows photographically the new products introduced by the company during the past year; it shows research accomplishments; it illustrates and discusses sales and other marketing problems; it discusses taxes. But it is by no means onesided. Human interest stories are there in the form of a picture story of a veteran returned from Korea, resuming his job with U. S. Rubber. Altogether it's a damned good job and I wish all companies, privately or publicly owned, would do likewise. *Your* employees are interested in *your* business. If you have reason to doubt this, ride the busses, street cars, subways. Listen in at soda fountains, greasy spoons and lunch wagons. What do they talk about? *Their* jobs. They talk of their jobs with a proprietary interest. You may own the business but they own the jobs. They think they know a damned sight more about their jobs than you do and often I have found they are right. *They'd like to be proud of their jobs if you will let them be.* They like to feel that their job is better than their neighbor's—more important. In his own mind every man is important—even Joe Doakes, the porter who actually is dumber than a steer. But Joe will talk. He'll advertise the company's products. He'll brag to beat hell about the company if you give him a chance. And if you keep him talking with an air of pride you have the antidote to communist propaganda.

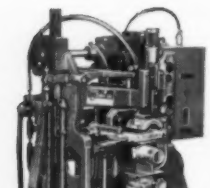
Watch Your Valves

One of the boys in the trade brought to my attention an amusing occurrence in his plant—amusing because it happens so often in so many places. It seems that in this plant they had a chemical process which gave very variable yields. The starry eyed chemists couldn't figure out what was going on so they'd keep adding more raw materials to bring the batch yields up. Then my friend, an engineer, started checking. He discovered that the process equipment was hooked up permanently with the sewer lines for clean out purposes. This aroused suspicion and a slow leak was discovered in the drain valve.

Process equipment never should be hooked up with sewer lines directly. A make and break connection is safer. I remember learning this lesson the hard way I designed a process set up with direct sewer lines. One weekend the plant was shut down and the man operating it had not tightly closed the sewer line valve. The following Monday morning we discovered that a thousand gallons of grain alcohol worth at that time eight bucks a gallon had vanished down the drain. Some people hook up process lines directly with the sewer but take the valve handles off. This is no good. Valves can't always be trusted and you can never be sure the operator has actually turned the valve off all the way before he took the handle off. So if your process yields are variable especially on the lower side, don't

Choose your labeler from the Label-DRI® family—

EVERY HOUR IS ALL PRODUCTION TIME with NO DOWNTIME for glue preparation!



The PONY *Label-DRI*
up to 60/m

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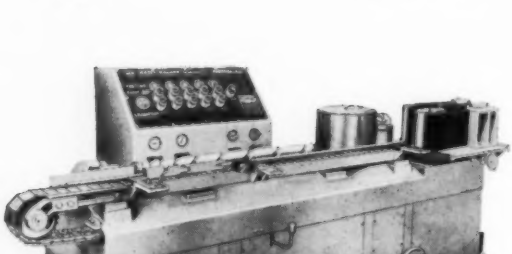

The *Label-DRI* CHAMPION
up to
300/m

Here's why DRY LABELING
makes Glue obsolete...

Dry labeling—done on the *Label-DRI* means that your labels—coated with plastic adhesive attain perfect tackiness through an accurately controlled heating element. They are literally *bonded* to the package, from edge to edge.

With glue, you have no such sustained performance. Too much water causes blisters and imperfect adhesion. Too little water causes excess adhesive, glue seepage and crystallization.

Only when the perfect balance of water and glue is contrived, do you get the results wanted. It takes constant care, and frequent interruptions for mixing or adding glue or water, to keep such equipment operating. With morning preparation, and evening clean-up, you lose approximately 40 minutes a day. Which, at even 100/m lowers production volume by 4,000 units per day.

Only DRI LABELING—the *Label-DRI* eliminates these many lost minutes. It delivers more work because every hour is productive—with no downtime, and no variables to fight.

Try the DRI-way!

Write for complete details!

911

NEW JERSEY MACHINE Corporation

AUTOMATIC LABELING • PACKAGING — PAPER BOX MACHINERY • MAKERS OF THE PONY LABELRITE

FACTORY SALES AND SERVICE BRANCHES
325 W. HURON ST., CHICAGO 10, ILL.
1701 CAREW TOWER, CINCINNATI 2, OHIO
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MAIN OFFICE & FACTORY: 1550 WILLOW AVENUE, HOBOKEN, N. J.

always blame your raw material supplier. Check your set-up, especially the valves. Also check tank linings for pin-hole leaks. I have found expensive solvents in boiler feed water, sucked by the vacuum return system through pin-hole leaks in steam jackets.

Gravity Flow

It beats hell how this traditional belief hangs on. I am designing a new plant for a process involving the handling of waxes, dry resins and solvents. The plant manager an old friend of mine expressed doubt that such a large scale operation which now requires three floors could be put into a one story building without mezzanines because of the problem of feeding the mixing vessels which are very large. At the present time these vessels are located on the top floor of the plant; they are sunk into the floor to facilitate loading dry materials and waxes into them. Very convenient. The dry materials are fed into mills suspended from the ceiling of the third floor to save lifting the raw material sacks. The dry material is stored on the fourth floor. The material is ground into drums and when ground the drums have to be brought up from the third floor so that they can be dumped into the mixers. Very convenient! A lot of handling saved there! When the product is mixed in the depressed tanks on the fourth floor it is pumped back up again from centrifugals located on the third floor through clarifying centrifuges located on the fourth floor. The product drops through cooling coils located on the third floor. It then drops into a finishing tank on the second floor where finalizing ingredients are added and then it is pumped through filters across the room to holding vats. Ah me!

Rarely can a liquid product be made without filtration or some auxiliary operation such as homogenization. These auxiliary operations require pumps and it's all the same to a pump whether the material is shoved up, sideways or downward. But why people will persist in thinking that there is some virtue in spreading out an operation over two or three floors, where it can't be observed all the time by the same crew, I will be damned if I know. But they do. Even when you show them that a three floor layout requires fifty percent more space because of duplicated access aisles they still think there must be some virtue in gravity flow. There may be but I'll be damned if I have ever been able to find it.

There Are Builders And Builders

Whenever you have to build a new plant you are confronted with the problem of selecting a builder. That's difficult because most builders will tell you anything to get the job. Then if the job is delayed you pay through the nose. If the workmanship is lousy there is little that can be done about it except to sue, and that is not always so easy, because there are many ways a builder can pin the blame on everybody connected with the project but himself.

I have learned from experience that if you must get a building built in a hell of a hurry go to one of the widely advertised, national contractors. They have excellent organizations, excellent procurement systems, good architects, engineers and construction supervisors. Necessarily their charges are very high. They will soak you with engineering fees, supervision and overhead expense plus a profit percentage on the entire cost of the job including their own charges. On small building projects these charges comprise a disproportionately large share of the total cost of the project. But the main thing is they get the job finished on schedule, barring strikes or bad weather. Often what you pay in excessively high overhead charges is more than amply compensated by getting the job done in a hurry. On big jobs builders' charges percentagewise are not out of line.

In normal times I would rather work with small, local builders who have good reputations in their own areas, especially on projects under two hundred thousand square feet because their overhead is low and you get a lot of personal service from the big boss or bosses, since such outfits don't have fifty jobs going on simultaneously all over the country. But don't expect speed from them. They haven't the procurement contacts or the follow up organization. If however it turns out that a lot of the materials are available locally such as brick, timber, cinder block, etc., the small, well-known local builder will lick the tar out of the national builder, who is looked upon as a foreigner with no permanent interest in the community.

There are some other outfits—building engineers and architects socalled—which must be watched. They'll bid low to get jobs. They subcontract everything including the building engineering, and to save a few bucks, they will allow sub-contractor to sub-contract. They'll chisel on materials. Once you get hooked by one of these outfits your job will certainly be delayed out of bounds and you'll get a lousy construction job. Contrary to my emphatic advice one of my clients gave his new plant job to one of these outfits. Now he regrets it. The plant was almost a year behind schedule before it was finished and when it was finished the construction was found to be poor. The result is bicker and battle with the guy owning the plant holding the bag.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Steel Mats for Temporary Floors

At American Cyanamid's Willow Island (W. Va.) plant a new job for the steel matting used on emergency airstrips solves an unusual material handling problem.

The ground floor in one of the buildings has not yet been finished with concrete flooring: fork trucks bogged down badly in the soft dirt. Recalling how steel mats were used on jungle airfields in World War II, A-C

Corner of tablet manufacturing department at Plough, Inc., Memphis, Tennessee. Stokes Model BB-2 tablet machines produce up to 1500 tablets per minute each.

54 Countries Know St. Joseph Aspirin

St. Joseph Cold Tablets and Anti-Histamine Tablets as well as a child's size (1¼-grain) Aspirin, Mexsana and Moroline products, Mufti Spot Remover, are other well-known products of the famous line of Plough Remedies.

Plough has recently dedicated a new big plant in Memphis, Tennessee . . . a long step from the little business started with $125 of borrowed capital in 1908.

From the beginning, accurate weight, accurate dosage, uniform density and satin-smooth finish have been stipulations of the manufacturer. With the vast growth of the business, high production has become an additional necessity. Stokes equipment — tabletting presses, oscillating granulators, mixers — have been equal to every demand of this exacting pharmaceutical manufacturer.

STOKES

STOKES MAKES

Plastics Molding Presses,
Industrial Tabletting
and Powder Metal Presses,
Pharmaceutical Equipment,
Vacuum Processing Equipment,
High Vacuum Pumps and Gages,
Special Machinery

F. J. STOKES MACHINE COMPANY, 5532 TABOR ROAD, PHILADELPHIA 20, PA.

figured it should do just as well on the unfinished floor, and bought enough to cover the area.

Although it's not as satisfactory as concrete, the matting works out perfectly as an inexpensive temporary flooring.

Tablet Study

Researchers in the School of Pharmacy at Wisconsin —Profs. Louis W. Busse and Takeru Higuchi, assisted by former graduate students R. D. Arnold and S. J. Tucker, have uncovered new facts about tablet-making techniques. They presented some of their ideas before the Buffalo Convention of the American Pharmaceutical society last August. And work along these lines is being continued.

Tablet making is a complicated business, because so many factors must be considered. The essentials of tablet manufacture are:

1. Free-flowing ingredients;
2. Chemicals that do not stick to dies or punches;
3. Sufficient binding properties to hold the tablet together.

Wisconsin scientists know that the "physics of tablet compression" is important, and they want to know more about such factors as particle sizes, moisture content, granule hardness and density, and the amount of compression necessary to make the tablet. And they are using scientific instruments to help them find the answers.

A glass gadget called a pycnometer measures the porosity or void space (space between the granules in a tablet). Bulk volume is determined in a complicated array of tubes and devices—a "high precision helium densitometer." And now they have another machine, an oscilloscope, which will give them valuable information under actual manufacturing conditions.

This instrument, the "cathode-ray oscilloscope" is its official name, looks somewhat like a small television set with a camera on top. It is connected electrically to a signal generator, and to the machine which punches out the tablets.

After the oscilloscope is warmed up, the chemical ingredients of the tablet are fed into the tablet machine, which compresses granulated material into tablets. Electrical signals from the tablet machine to the oscilloscope show up on the screen as wavy bluish lines, and provide a record of the energy expended by the machine punching out the tablets. Meanwhile, the attached camera takes pictures of the pattern on the screen.

"With this new oscilloscope set-up," says Professor Busse, "we will be able to get a continuous flow of information during tablet manufacture. These data, together with facts obtained from other instruments, will help us to learn a great deal more about tablet making."

Funds for this research are provided by the Wisconsin Alumni Research foundation, plus equipment grants from Smith, Kline, and French, Inc., Parke, Davis and Co., pharmaceutical companies; and the F. J. Stokes Co., manufacturer of pharmaceutical equipment.

New Water Conditioning Booklet

A new 20-page Bulletin 611 covers the various methods of conditioning water and the purposes served by each. Features an improved water softener of "double-check" design which gives up to 44 per cent greater capacity and guards against costly loss of zeolite. Tells how to make any water softener deliver from three to ten times more soft water. Describes a deionizer of single-tank design which produces ultra-demineralized water at a fraction of distillation or evaporation cost. Chemical feed, zeolite—post treatment, zeolite—alkalinity neutralization, and split-stream dealkalization systems for boiler, process and general water conditioning purposes are covered. Sections of the bulletin are devoted to latest type filters, purifiers, degasitors, zeolites, ion exchange resins, and watr treatments for all purposes. Copy of booklet will be sent on request by Elgin Softener Corporation, Elgin, Illinois.

Filamatic

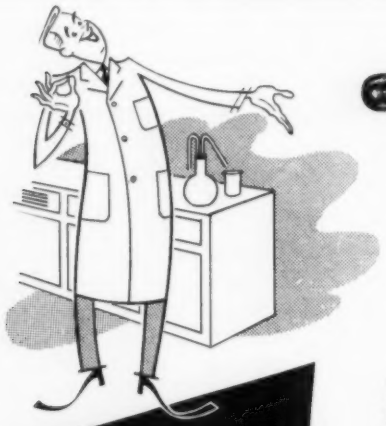
The new, Improved Filamatic is being introduced by the Scientific Glass Apparatus Co. Inc., Bloomfield, New Jersey. It is an automatic pipette and vial filling machine which dispenses chemical and serological reagents, serums, antigens, antitoxins, biologicals, etc. with micro accuracy, at speeds instantly variable from 10 to 90 deliveries per minute. A unique "Ever-Dri" delivery tip prevents hanging drop.

The Filamatic, which covers the entire range from .025 cc. to 50 cc. without expensive attachments, does not have to be recalibrated each time it is used. It has a simplified, two-knob control for easy operation, and the entire unit can be easily cleaned. All liquid contacting parts are made of stainless steel. All rotating and moving parts are fitted with Oilite self-lubricating bearings.

For complete information and price, write Scientific Glass Apparatus Co. Inc., Bloomfield, New Jersey.

Controlled Cabinet

The new "Anets" Laboratory Cabinet, fully automatic all electrically operated, has broad coverage of temperature selectors ranging from room up to 160°F. Likewise, humidity may be selected at room percentage and range upward to 96 per cent relative humidity. Photo shows the laboratory cabinet equipped with Brown M.H., two-pen dual elective controllers; integral time pattern controllers; blower cooler with ¼ H.P. capacity condensing unit: expansion valve and pressure control. The temperature, humidity and cooling controls are air-operated for positive modulating action. Variable shaped cams automatically control rise and fall of temperature and humidity and length of cycle at predetermined settings. Temperature can be lowered to 30°F. without abnormal icing of coils. Two-way switch on air conditioner (with toggle down) develops 1200 watts in heating coil, for temperatures up to 150°F. and (with toggle up) cuts in an additional heating ele-



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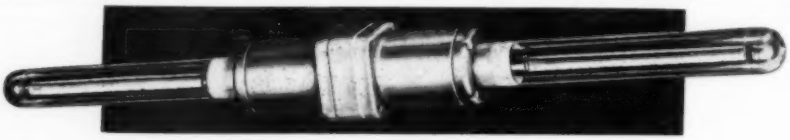


...the NEW HANOVIA EXPLOSION-PROOF GERMICIDAL LAMP UNIT

This remarkable explosion-proof germicidal unit is a new addition to the Hanovia line. It is equipped with two high intensity Hanovia Ultraviolet lamps with a maximum concentration of output in the germicidal region, 2537 angstroms.

Approved by the underwriters' laboratories, this unit is ideal for pharmaceutical manufacturers and other industries for use in locations subject to explosion hazards where contamination from air-borne organisms can affect the quality of the product.

This unit is designed for wall or ceiling mounting to furnish direct or indirect irradiation and is readily adaptable for mounting in sterile hoods. Write for further information today.

GERMICIDAL SALES DIVISION

HANOVIA CHEMICAL & MFG. CO.

DEPT. B-5, NEWARK 5, N. J.

US

Multiple Filling AT ITS BEST

JUST LOAD IT —the machine does the rest

The U. S. Model B-49 Straightline Vacuum Filler is a versatile machine for filling any liquids or semi-liquids in any type or size containers including gallons. Quick on-the-job changeover from one container size to another. So completely automatic, it virtually does its own thinking. Its many remarkable features are illustrated in "Bulletin B-49" sent upon request.

SEMI-AUTOMATIC VACUUM FILLER

Continuous filling of 2 containers at a time. Write for "Bulletin B-2."

Improved Siphon Filler for any type of container. Write for "Siphon Bulletin."

U. S. BOTTLERS MACHINERY CO., 4013 N. ROCKWELL ST., CHICAGO 18, ILL.

OFFICES: Boston, New York, Philadelphia, Houston, Dallas, Denver, San Francisco, Los Angeles, Seattle, Portland, Phoenix, New Orleans, Tampa, Montreal, Toronto, Vancouver, Winnepeg. EXPORT OFFICE: Toledo, Ohio.

ment to develop 1800 watts to increase temperature range up to 180°F.

Inner cabinet, door liners, air conditioner, ducts, and electrical nichrome heaters, steam generator, water feeder and other parts are of stainless steel.

Door has exterior and interior glass with conventional automatic wiper on interior glass to permit seeing inside cabinet. Heavy moulded rubber gaskets are fitted to seal doors. Wall, ceiling and doors have full 3" insulating core. Unit meets all requirements of J.A.N. specification testing and is used extensively in electric, electronic, radio, automotive, aircraft, food, pharmaceutical, medical, chemical, and allied industries, also where defense contracts specify this type of equipment to constantly control quality of production. For fully descriptive circular write Anetsberger Bros., Inc., 165 N. Anets Drive, Northbrook, Illinois.

Automatic Carton Sealer

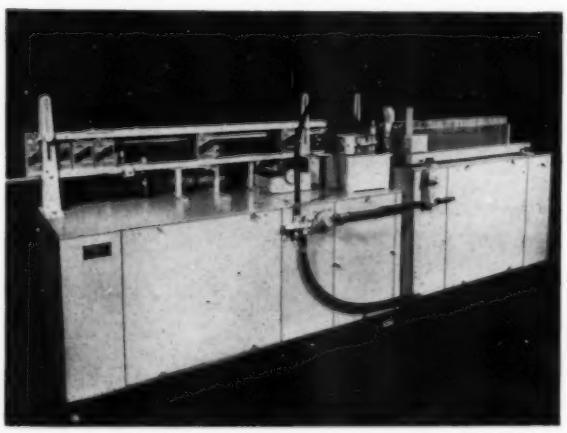
A new automatic carton sealer for handling small cartons has been developed by J. B. Bellamy & Co., 107-111 Main Street, San Francisco, California. This completely automatic sealer comprises two separate units: a bottom sealer, complete with automatic feed and carton magazine, and a top sealer, including a compression or drying section. The units may be used together, with any type of carton filling operation in between, or they may be used individually for operations where only the bottoms or tops of the cartons are to be glue-sealed.

According to the manufacturer, speeds of 65 cartons per minute can be obtained, with one operator to keep the bottom sealer's carton supply magazine filled. No operator is required for the top sealer.

Bellamy emphasizes the simplicity of this machine, with changeover from one size to another taking between 15 and 20 minutes for both units.

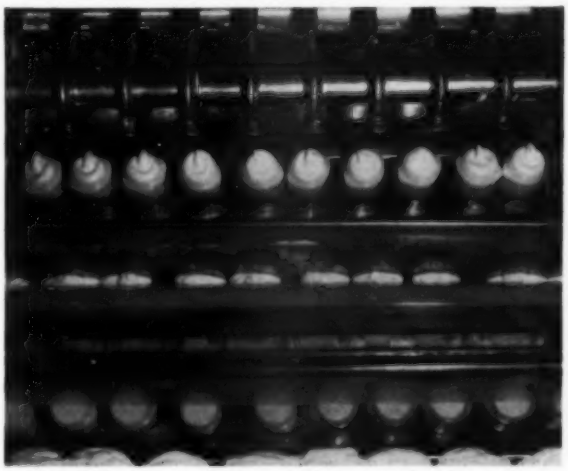
The machine is designed to handle sizes from a small gelatin-type carton up to a giant soap carton, with no added parts except for an extreme size range. If desired, the sealer can be furnished to utilize pre-lined cartons.

Bellamy states that several sealers are now in daily use, both in this country and abroad, handling cartons for such items as soap, rice, salt, macaroni, insecticides, and dog biscuits.



Cream Jar Wipers

Polyethylene sheet has replaced rubber as material for the wiping blade of a device used by Pond's Extract Co., Clinton, Conn., to wipe off the excess and smooth



face cream in jars after they have been filled on high-speed packaging lines.

Pond's adopted the plastic material when cloth-inserted rubber sheets, selected originally for their flexibility, were softened and eroded by continual contact with face cream. Frequent replacement and servicing were also necessary to keep the old type wiper in working condition.

Polyethylene, while furnishing the required flexibility, also contributes the advantages of being unaffected by alcohols, perfume oils, or hydrocarbons. Another asset of the material lies in its low rate of water absorption.

The material has been placed in operation in the cream leveling-off device of a filling machine furnished by the Filler Machine Co. which is capable of filling 120 jars or more per minute with face creams. Polyethylene sheet for the "wipe-off" blades is supplied by Plax Corp., Hartford, Conn.

New Methods for Marking Glass

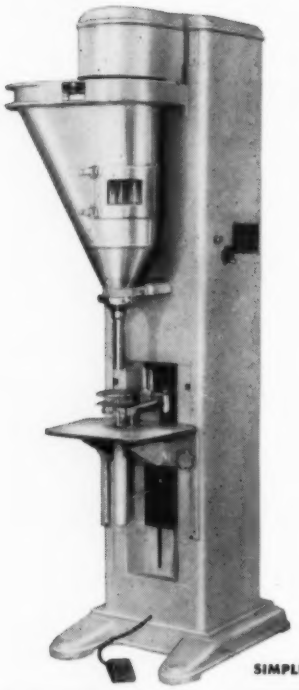
Three new methods of marking ampules, bottles, tubes, cartridges, vials and other cylindrical glass containers for identification have recently been developed by Markem Machine Company, Keene, New Hampshire.

For average single usage requirements, such as identification of one-dose ampules, an improved fast-drying AIR-DRY ink permits marking and packing at high production rates. For multiple use or to withstand refrigeration Markem has developed a new treating process resulting in more durable imprints.

For truly permanent marking, the Markem Maramic Process is offered. The markings will withstand all standard sterilizing compounds and sterilization by

S&S Presents —

the new "EG" FILLING MACHINE



This most advanced "EG" Universal Filler, designed and manufactured by Stokes and Smith Company, Philadelphia, Pa., features mechanical parts located above the filling station, and includes many innovations in design, amplifying all of the versatility of the well-known S & S G-1 Universal Filling Machines.

For use by volumetric filling—packing against pressure—or with combination auger and vacuum—or gross weighing.

- *Parts located above filling station.* Keeps parts clean from dust and dirt; helps reduce cleaning maintenance, makes machine look neater.
- *40% less working parts.* Totally enclosed planetary gears run constantly in oil, exceptionally quiet in operation. There are no cams or sprockets. Magnetic clutch is self-adjusting.
- *Finger-tip changeover.* Simplified electric control panel is conveniently located near operator.
- *Auger speed is adjustable from 500 to 1000 RPM.*
- *Micrometer adjustment for speed and accuracy.*
- *Pre-timed for greater efficiency.* Filling cycle can be timed to pace operator for more efficient production.
- *Adjustable table*—the same augers can be used with varying heights of containers.
- *Adaptable single and multiple stations for automatic conveyor filling.*
- *Compact size.* 24" wide, 31" long, 7'7" high.

fmc

FOOD MACHINERY AND CHEMICAL CORP

STOKES & SMITH Co

4912 Summerdale Avenue
Philadelphia 24, Pa.

Pacific Coast
SIMPLEX PACKAGING MACHINERY, INC.
Oakland, California

UNITED STATES PHARMACOPOEIA XIV

CONTAINS STANDARDS, TESTS AND ASSAYS FOR ALL U.S.P. PRODUCTS

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NATIONAL FORMULARY IX

Prepared by the Committee on National Formulary Under the Supervision of the Council by Authority of the AMERICAN PHARMACEUTICAL ASSOCIATION

920 PAGES — $8.00 POSTPAID — BOUND IN FABRIKOID

Drug & Cosmetic Industry **BOOK DEPARTMENT** 101 West 31st St., New York 1, N.Y.

steam autoclaving. They will not chip or peel in handling. An electric furnace is required with the Maramic Process.

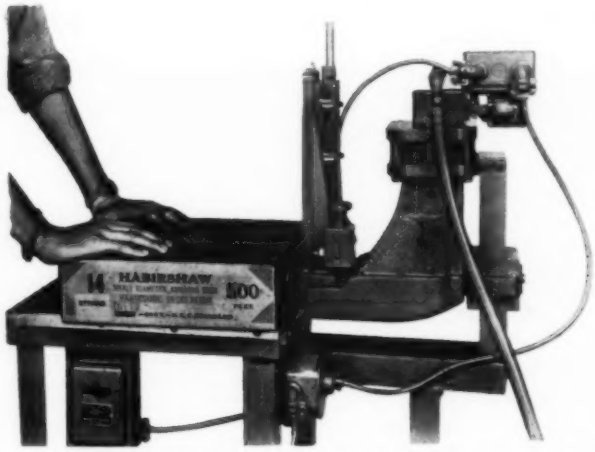
Any of these three new processes may be used with present Markem Machines (Models PAM & 20A), adding greatly to the capabilities of equipment now in use as well as those of new machines. Further information and samples for testing may be obtained from Markem Machine Co., Keene, N. H.

Carton Staplers

International Staple and Machine Company, 801 East Herrin St., Herrin, Illinois, announces an *automatic* model of its retractable anvil carton stapling machine. This model (THI-HAS), recommended for closing of overlap cartons . . . and end closure on long narrow cartons of either the overlap or slotted type, is air operated and automatically functions when the operator presses the carton against the stapling head.

Stapling of filled cartons, fibre or corrugated, is done from *outside* the carton. An important feature of the equipment is that it can be adjusted for concealed stapling. When adjusted in this manner, the staple penetrates approximately two-thirds of the way through the carton wall, and is clinched.

Corrugated cartons can be closed faster and more economically because the equipment makes firm, neat closures with fewer staples per unit area than any other known method. Cartons closed by this method meet



full requirements of the Consolidated Freight Classification and also have the approval of the Post Office Department.

The entire assembly is mounted on a standard size flat top stainless steel table designed to accommodate cartons of various sizes. Operation of the unit requires 60 lbs. per square inch air pressure.

New "Pony" Mead Mead

Newest addition to the Mead Mill line is a mobile "Pony" model. This new pulverizing mill is powered by a 1-h.p. motor with an output of 50-100 pounds per hour. It will pulverize any dry, grindable material to specifications without damaging molecular structure.

The Mead Mill is an impact type pulverizer. Disintegration of the material being accomplished by throwing against impact surfaces and by impact of the material against itself during the process. Mill speed and fineness of the screen used determines size of grind for any given material. For this reason, the mill is, to a partial extent, custom assembled for each user. Horsepower is minimum in relation to production.

Other models of the Mead Mill are available in sizes ranging from 5 h.p. with an output of 500 pounds per hour to 30 h.p. with an output of 16,000 pounds per hour. All models are either cast or welded steel construction, the roto shaft is mounted in flange-assembled ball bearings. Special mills are made using non-ferrous metals.

Mead Mill maintains an experimental laboratory in which they pulverize any type material sent to them for testing. They generally require ½ to 1 cubic foot of material for experimentation, along with a smaller sample of the finished grind. Made by Mead Mill Co., 14620 E. 7 Mile Road, Detroit 5.

Sanitary Screw Conveyor

This new unit differs from normal lines of special screws in that the joints between the flights and the pipe shafts are continuously welded both sides of the flights and the welds are ground to a smooth fillet and polished to a No. 4 finish. The flights are of uniform thickness from pipe to the outer edge. There are no lap joints or crevices to accumulate dirt. The screws have a smooth continuous surface from one end to the other.

This line of screw conveyor is offered in any standard or special size from 1" diameter to 16" diameter in any pitch, thickness and shaft diameter. It is available in stainless steel, monel, aluminum or other metals with deliveries of approximately 3 weeks if material is in stock.

These screws are available separately or in conjunction with complete systems including hoppers, feeders, troughs, drives, spouts, etc. Sanitary screw conveyors are made by Kornylak Engineering Corp., 513 Communipaw Avenue, Jersey City 4.

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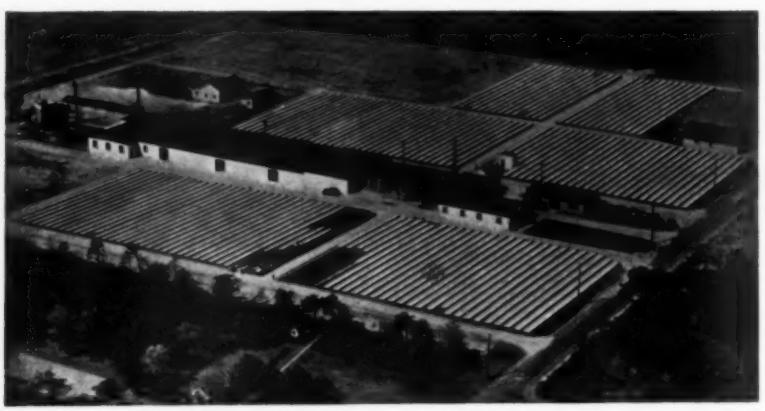

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Readers' Questions

HAIR CREAM: I would like to inquire whether you could give me a formula for making a hair cream from propylene glycol ester of oleic acid or rinceoleic acid. The product should be neutral in reaction and have the consistency of a heavy cream. St. Petersburg.

I think that something on the following order will give you a working basis for further experiment and development.

Polyethylene glycol	**10 parts**
Petrolatum 43/48°	**60 "**
Stearic acid XXX	**10 "**
Mineral oil 65/75	**10 "**
Paraffin 120°	**10 "**

Heat ingredients until a uniform melt is obtained. For water-in-oil emulsions, up to 35 per cent water may be added. In preparing this type emulsion, heat the water to 80° C. and add slowly with agitation to melt at 80° C. Agitate slowly to below 30° C. when it may be packed. The emulsion should be homogenized for best results.

RODENT KILLER: I would like information about biological methods of controlling rodents. I refer to biologic preparations or methods which develop fatal diseases in the animals. Almeria, Spain.

The newest method is the one based upon the use of a blood anti-coagulant which was developed by Dr. Paul Link, Wisconsin Alumni Research Foundation, Madison, Wisconsin. I believe you will be able to obtain considerable information by writing directly to him. The material used in this method is known as "Warfarin." Additional information on this material may be obtained from the commercial suppliers of this product. I would also suggest that you write to the United States Department of Agriculture, Washington 25, D. C.

PABA AND SALICYLATES: As a subscriber to the Drug and Cosmetic Industry, *may I have your reply to the following questions? For rheumatic conditions in which salicylate medication is indicated, which salt, ammonium, sodium, magnesium or the natural source, is regarded as being most effective and having the greatest margin of safety? In what manner does para-aminobenzoic acid enhance the salicylate action? Rochester*

Para-aminobenzoic acid (PABA) helps to maintain high blood levels of salicylates and it is my impression that it produces this effect through a synergistic action. In some cases, as in a report by R. J. Hoagland (Am. J. Med. 9:272, 1950), PABA is used in conjunction with aspirin but in at least two commercial products, PABA is combined with sodium salicylate in enteric coated tablets. A study of the action of such a combination was reported by R. T. Smith in the *Journal-Lancet*, (70:192, 1950).

CREAM OIL HAIR "TONIC:" Kindly send me a formula for a cream oil hair tonic. Elmhurst.

A product of this sort was described on page 527 of the April 1951 issue of Drug and Cosmetic Industry. The following liquid hair dressing has been given previously, but I am repeating it for your benefit:

Petrolatum	**7.5 per cent**
Mineral oil	**37.5 " "**
Lanolin, anhydrous	**3.0 " "**
Sorbitan sesquioleate	**3.0 " "**
Beeswax, white	**2.0 " "**
Borax	**0.5 " "**
Water, to make	**100.0 " "**
Perfume	**Sufficient**

Mix together the petrolatum, the mineral oil, the lanolin, the sorbitan sesquioleate, the beeswax, and heat the mixture to 75°C. The borax is dissolved in the water, brought to the same temperature and added slowly with moderate but thorough agitation. If agitated until cold, this becomes quite thick.

SHAMPOO: I would appreciate a good formula for a shampoo similar to Blank, Blank, or Blanks. West New York.

It is contrary to our policy to divulge the formulas of brand name products. However, the shampoos mentioned by you are based on synthetic detergents. Actually, it would be a simple matter to take one of these detergents (e.g. triethanolamine lauryl sulfate), mix it with the requisite amount of water, add a suitable preservative, let chill and filter or let settle and decant. Conditioners are often included in the shampoos to combat any drying tendency of the detergent. Since the different synthetic detergents vary in composition, it is not possible to give specific recommendations with respect to proportions. I would, therefore, suggest that you contact manufacturers of raw materials and follow their specifications.

DEPILATORY: Could you please furnish us with a formula for a depilatory wax, which could be used cold. Brooklyn.

I am assuming that you are referring to the physical method by which the hairs are pulled out rather than to chemical methods. Up to recently, practically all depilatory "waxes" required melting before use. However, a few years ago, a process was developed which permits the removal of unwanted hair with a cold composition. This is covered in U. S. Patent 2,417,882, issued to Leonard G. Meary, of Los Angeles, California. Basically the composition used by Neary consists of two parts of commercial glucose with one part of finely powdered zinc oxide. If you wish further information, I would suggest that you refer to the original patent.

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Compounder's Corner

Polyethylene Glycol Fatty Esters in Cosmetics

In a discussion on the developments in aliphatic chemistry and their influence on the cosmetic industry, W. H. Dicken (*J. Soc. Cosmetic Chem.*, Special British Issue 2:126, 1951) points out that the polyethylene glycol or polyoxyethylene fatty esters provide an especially versatile series of compounds. The neutral and inert behavior of these compounds compared with electrolytes generally renders them harmless towards the most sensitive tissues. As a very general guide, the surface qualities of these surface active esters may be predicated upon the balance of lipophilic and hydrophilic portions of their structure. When these are more or less equal, as in polyethylene glycol 300 monostearate or polyethylene glycol 200 monolaurate, we have materials of unctuous or fatty appearance and external quality, which self-emulsify in cold or warm water to give stable, opaque and somewhat viscous dispersions. These compounds can be incorporated into almost any type of cream, either as the principal emulsifying agent, or as emollients. They are probably best in the heavier types of cream as used for cleansing or for winter use. They can incorporate weak acids or inorganic salts as used for astringents, depilatories, or in restraint of perspiration.

For example, a cleansing cream can be made from:

Liquid petrolatum	50
Lanolin absorption base	5
Polyethylene glycol 300 monostearate	5
Water	40

This could be made a little thicker by putting some of the polyglycol ester with the water portion, or by adding a very little triethanolamine.

A suggested formula for a vanishing cream calls for the use of:

Stearic acid	20
"Carbowax" 1000 monostearate	5
Water	70
Polyethylene glycol 300 monostearate	5

Here a strongly hydrophilic ester is used to emulsify the stearic acid. The addition of the polyethylene glycol 300 stearate to the aqueous portion increases emolliency and consistency.

An astringent cream, similar in composition to the above vanishing cream, contained in addition of 3 per cent of aluminum sulfate.

For a mucilaginous hair cream, Dicken used the following formula:

Polyethylene glycol 400 monostearate	6
Lanolin	1
Water	90
Polyethylene glycol+perfume	3
Polyethylene glycol 400 laurate q.	.5

The last constituent is present as a dispersant for the perfume oil.

For an oily hair cream he used the following:

Polyethylene glycol 400 monostearate	2
Lanolin	2
Liquid petrolatum	20
Polyethylene glycol 400 monostearate	5
Citric acid	1
Water	70

Powdered Washable Ointment Base

A new formula for a powdered washable ointment base has been developed by J. B. Ward and G. J. Sperandio (*J. A. Ph. A.*, Pract. Ed. 13:98, 1952), as follows:

Polyethylene glycol 4000	236.00
Sodium stearate	236.00
Stearic acid	468.30
Cholesterol	11.80
Sodium lauryl sulfate	47.20
Methyl paraben	0.45
Propyl paraben	0.25

The base has a melting point of approximately 60° C. and a pH of 7.45 when 6 parts of the powdered base are mixed with 4 parts of distilled water. Freezing has no effect on it, and the base is compatible with a wide range of medicaments including fixed oils. Through the patch test technique, it has been shown to be no more irritating on human subjects than the official hydrophilic ointment.

Hair Curling Products

In Italian patent 458,943, P. Mora describes several products for curling the hair. He claims that solutions for this purpose, such as the following, will not develop bad odors or cause damage to the skin:

I

Sodium or potassium bisulfite	1.0 per cent
bisulfite	1.0 per cent
Maleic acid	0.5 " "
Sodium pyrosulfite	0.5 " "
Water, distilled	98.0 " "

II

Sodium or potassium metabisulfite	2.0 per cent
Maleic acid	0.5 " "
Ammonium chloride	0.5 " "
Water, distilled	96.0 " "

III

Sodium or potassium hyposulfite	25.0 per cent
Sodium pyrosulfite	3.0 " "
Maleic acid	2.0 " "
Water, distilled	70.0 " "

Aqueous Coal Tar Lotion

The tars have long been important members of the dermatologists' armamentarium. To extend the usefulness of these materials, S. C. Pflog and L. C. Zopf (*U. S. Armed Forces Med. J.* 2:1177, 1951) set out to develop a water-dispersible tar. After experiments with many surface-active materials, it was found that nonionic agents, as represented by polyoxyethylene sorbitan monolaurate (Tween 20), gave the most satisfactory results. For example, a lotion preferred by the following formula gave a particle size of about 21 microns:

Crude coal tar	1 part
Polyoxyethylene sorbitan monolaurate	4 parts
Zinc oxide	16 "
Glycerine	2 "
Bentonite magma	40 "
Calcium hydroxide solution, U.S.P., to make	100 "

The coal tar was evenly dispersed

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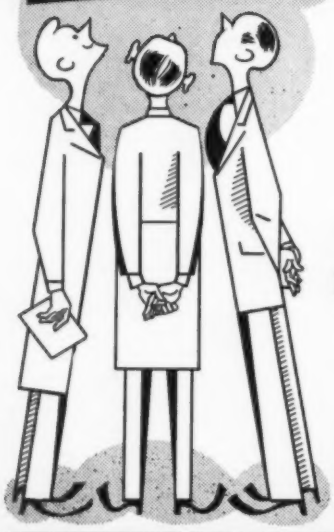

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throughout the lotion. After application to the skin, the lotion was easily removed with soap and water. Thus, say Pflog and Zopf, coal tar can now be prescribed in aqueous vehicles and a well-recognized incompatibility is overcome. At the same time, the range of usefulness of coal tar is increased and offers many new possibilities.

Modern Lipsticks

In the January, 1952 issue of *Recherches*, a new periodical published by Roure-Bertrand Fils et Justin Dupont, J. Parentini points out that, before World War II, most lipsticks were either too oily or too dry. However, modern research has overcome these difficulties to develop formulations that are combinations of highly selected bases and the best grades of pigments. In considering the base, he points out that nearly all good formulas contain castor oil because it is one of the very few oils that contain ricinoleic acid and has an extremely high viscosity. Both of these important characteristics make it ideal for use in the base. The adjunct use of heavy mineral also gives very satisfactory results. In discussing the materials that impart rigidity, he notes that beeswax and modern synthetic waxes are commonly used because of their ready compatibility and because they produce no visible crystallization on solidification. A small proportion of carnauba wax contributes considerably toward increasing the rigidity of the stick. It also raises the melting point and imparts a smooth lustrous finish. Other materials, like glyceryl monostearate, cetyl alcohol, ozokerite, spermaceti and candellila are all good in small quantities. Products such as polyvinyl alcohol, methyl cellulose and propyl cellulose have great possibilities.

With respect to color, Parentini states that the use of certified colors has reduced the risks of toxicity to a negligible level. Two types of "bromoacids" are generally used. One is the dibromo fluorescein which imparts an orange yellow stain, and the other is the tetrabromo fluorescein which imparts a red blue stain. It is advisable that the two be used in conjunction with each other. The "bromoacids" are indelible. The use of pro-oxidents, especially iron oxides, should be avoided with the utmost care. Insoluble pigments are true bases that give us the color shades. One of the most important is titanium dioxide. This product provides both good coverage and excellent shade modification. Special attention must be given as to the dispersion of colors in order to get full development of the shade.

The permeation of the soluble colors is greatly assisted by the addition of a good wetting agent such as lauryl sulfate, dioctyl sulphosuccinate, and such. The addition of a wetting agent has been one of the greater developments in modern lipstick formulation, as its use helps to spread the pigment evenly and smoothly on the lips. The use of a good preservative and germicidal agent is of utmost importance. This will insure the stick from becoming rancid and prevent bacterial action. It also gives long shelf life.

Considering the perfuming of lipsticks, Parentini stresses that too much attention is given to odor and not enough to taste. A perfume should be used that has a most pleasant taste.

Typical formulas for modern lipsticks are as follows:

I

Lauryl sulfate	50
White beeswax	225
Mineral oil (heavy)	350
Castor oil	200
Cetyl alcohol	100
Eosin myristate	50
Lanolin, anhydrous	100
Polyvinyl alcohol, 3 % sol.	10
Perfume oils	**Sufficient**

II

Lauryl sulfate	75
White beeswax	300
Spermaceti	50
Lanolin, anhydrous	100
Castor oil	100
Cetyl alcohol	50
Mineral oil (heavy)	200
Perfume oils	**Sufficient**

These suggested bases can be made softer or harder by controlling the amount of mineral oil in each formula. To these bases, the desired amount of "bromoacid" lakes and pigments are added.

For the manufacturing procedure, an effective working basis is to first dissolve or disperse the color material in castor oil (or any suitable solvent) then add the wetting agent. The waxes are carefully heated over a water bath to a few degrees above their melting point, then the colorless pigment base is added. This is then mixed with the color and castor oil mixture. The ingredients are thoroughly mixed in a jacketed or colloid mill. When the mass is fully uniform, it is allowed to cool to 15° C. above the setting point. The perfume oils are then added and mixed well into the completed base. The finished product can now be poured into the molds and chilled rapidly. The chilling is a very important step in the manufacturing of a good lipstick. The stick is then taken out of the mould and flamed. It is then inspected and placed into the desired holders and ready for distribution.

German Skin Cream Patent

In German patent 805,771, J. Etbaur claims that a cream which softens the skin and assures a dull or matte appearance is prepared as follows: Add 1.5 kg. cornmeal or chestnutmeal to 6 or 7 liters of water with stirring. After boiling one hour, incorporate 100 Gm. vegetable oil and 50 Gm. decocted linseed oil. Add 50 or 60 Gm. of gelatin dissolved in warm water to the hot mass.

Chemical Catalog

The Chemical Division of Celanese Corporation of America, 180 Madison Ave., New York 16, N. Y., announces publication of its new 1952 catalog. The forty page catalog includes information on all products of the division including aldehydes, ketones, solvents, acids and glycols. This new catalog represents extensive revisions on previous editions and has been enlarged to include a number of new chemicals. There is considerable information on the uses and applications of these compounds. An extensive listing of physical and chemical properties of many of the chemicals has been included. Celanese specifications are available, as well as shipping, handling and toxicological data.

T. G. A. Standards for Butyl Stearate and Isopropyl Myristate

Two new sets of specifications have been issued by the Board of Standards of the Toilet Goods Association. The first, T. G. A. Specification No. 39, covers butyl stearate which is defined as an oily liquid consisting chiefly of the butyl esters of stearic and palmitic acids. The second, T. G. A. Specification No. 40, provides standards for isopropyl myristate, which is essentially a mixture of the isopropyl ester of myristic acid and lesser amounts of the isopropyl esters of lauric and palmitic acids. Both sets of specifications provide standard for color, odor, solubility, specific gravity, acid value, ester value, titer, saponification value of thes eparated fatty acids, acid value of the separated fatty acids, and iodine value of the separated fatty acids. The specification for the myristate also includes a standard for the refractive index.

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Industry's Books

Hormones: A Survey of Their Properties and Uses, Published by direction of the Council of The Pharmaceutical Society of Great Britain, 220 pp., Cloth, The Pharmaceutical Press, London, 35s.

In selecting the material for this book the aim has been to provide pharmacists, medical practitioners, students, and other interested persons with an account of those hormones and endocrine glands which have well defined pharmacological effects and therapeutic applications, together with information on closely related substances such as the artificial hormones and "anti-hormones."

Textbook of Oragnic Chemistry, Third Ed., by George Holmes Richter, Dean of The Rice Institute and Professor of Organic Chemistry, 762 pp., cloth, John Wiley & Sons, Inc., New York, $6.75.

The principal changes in the third edition are the inclusion of much new material on the electronic configuration of elements with special reference to sigma and pi bonds, nuclear structure, and isotopes of interest to organic chemistry. In addition, the synthesis of many isotopically labeled organic compounds is described. The theoretical treatment of the mechanism of the reactions of unsaturated systems; of resonance in aldehydes, ketones, acids, tautomerism, aromatics, dyes; hydrogen bonding; transition state mechanisms; Walden inversions; complex theory of aromatic nuclear reactions; color in dyes; and the biosynthesis of sugars have been included. Several new types of reactions have been introduced, for example, vinylation through acetylene, the Leuckart reaction, Ziegler bromination, crossed Cannizzaro reactions, the oxo process, the Mannich reaction, reduction with lithium aluminum hydride, and the properties of copper chromite catalysts. Among the newer products discussed are silicone polymers, DDT, 2, 4-D, E, paludrine, phenothiazine, the penicillins, thiouracil, etc. In addition, there is new material relating to the optical nomenclature of sugars and amino acids.

The Present Status of Antibiotic Therapy, (With Particular Reference to Chloramphenicol, Aureomycin, and Terramycin,) by Francis G. Blake M. D., Department of Internal Medicine, Yale University School of Medicine, New Haven, Publication Number 137, American Lecture Series, Paper Bound, 26 pp., Charles C. Thomas, Publisher, Springfield, 90c.

Stressing the advantages, but calling attention to the cautions and safeguards, this monograph shows the remarkable advance in the treatment of infectious diseases that has been made in the last four years with antibiotic therapy. Each antibiotic is evaluated as to its effectiveness in Scrub Typhus, Epidemic Typhus, Murine Typhus, Rocky Mountain Spotted Fever, Boutonneuse Fever, Rickettsial Pox, Q-Fever, Psittacosis, and Lymphogranuloma Venereum, Primary Atypical Pneumonia, Typhoid Fever, Amebiasis, Brucellosis, Tularemia, Whooping Cough, and other diseases.

The Phosphatides, by Harold Wittcoff, Research Dept., General Mills, Inc., American Chemical Society Monograph Series No. 112, 564 pp., Cloth Reinhold Publishing Corp., New York, $10.

This new book, the first really complete one on this subject for over 20 years, offers you a logical, fact-filled survey of virtually every phase of phosphatide research. It interprets and fully describes the nomenclature, isolation, structure proof, properties, synthesis, physical chemistry, enzymic relationships, analysis, sources, biochemistry, medical aspects, metabolic relationships, and commercial utilization of all the known phosphatides. Particular emphasis is placed both on recent achievements and on what remains to be accomplished in the field. Numerous gaps in present-day knowledge are carefully pointed out as a challenge for more intensive study. All the literature through 1949 is critically surveyed and significant advances made in 1950 and 1951 are included. References following each major division of the book are unusually complete.

Modern Headache Therapy, by Arnold P. Friedman, M.D., Physician in Charge of the Headache Clinic, Montefiore Hospital, 164 pp., The C. V. Mosby Co., St. Louis, $4.

Recent studies have greatly increased our knowledge of the physiological and psychological mechanisms involved in headache. These advances indicate the necessity of treating the patient as a whole, considering both the physical and emotional aspects. The observations recorded herein are based upon experience derived both from a private practice devoted primarily to the study and treatment of headache and from the records of three headache clinics. A clinical evaluation of the newer therapeutic agents is presented. This book should prove useful to the practitioner and the medical student as a basic guide in headache therapy.

The Performance of Lubricating Oils, by H. H. Zuidema, Research Laboratories, Shell Oil Company, Inc., American Chemical Society Monograph Series No. 113, 179 pp., Cloth Reinhold Publishing Corp., New York, $5.

This book, amply supplied with helpful charts, tables and illustrations, summarizes and evaluates the wealth of data on the performance characteristics of lubricating oils under various conditions. The subject is approached from the point of view of performance (oxidation, bearing corrosion, etc.) rather than specific application (aircraft oils, motor oils, etc.) because performance characteristics are of a more basic nature than the properties of an oil for specific use. Here you will find discussions not only of general lubrication requirements, but entire chapters devoted to such important topics as the lubrication process, flow characteristics, sludge and lacquer deposition, emulsification and foaming, with ample reference to viscosity, pour point, and extreme pressure lubrication. Worthy of special mention is the chapter on manufacturing methods, designed to point out the effects of each step in the manufacturing process upon the performance characteristics of the final product.

Animal Health

B H C for Sheep Scab

In the Southwest sheep country, says R. R. Dykstra (*Vet. Med.* 47:76, 1952) sheepmen are enthusiastic regarding the effectiveness of a single, complete immersion in benzene hexachloride (BHC) solution for the control of scabies. The solution used is 5 pounds of BHC in 100 gallons of water; for replacement, 5.5 pounds in 100 gallons of water are used. Heavily fleeced ewes and rams will come out of the dip saturated with it, and even after preliminary draining will retain up to 4 gallons of solution in the fleece. These animals must have support to prevent drowning during immersion. A single dipping furnishes a lengthy protective period (residual control) against reinfestation.

Cobalt in Swine Nutrition

In the Annual Report of the North Dakota Agricultural Experiment Station (Station Bull. 371), issued during January 1952, W. E. Dinusson reports that 120 Duroc pigs were divided into 20 lots to gather additional facts on cobalt for swine and its effects when used with rations containing meat scraps, alfalfa, and vitamin B_{12} singly and in combinations. A preliminary interpretation of the data indicates that cobalt significantly increased the gains of pigs. Further, additions of 5 per cent meat scraps to a corn-soybean oil meal type ration gave increased gains. Additions of B_{12} to either the "all plant" rations or the rations containing the meat scraps also stimulated gains. However, using combinations of cobalt and B_{12} gave no greater response than cobalt alone. A common commercial trace mineral salt (half of one per cent of ration) did not give as large a boost to gains as did the cobalt salt, suggesting that for pigs where only one-half of one per cent salt is used in the rations, the trace mineral salts do not contain enough cobalt. Additions of 5 per cent of excellent quality dehydrated alfalfa to these rations resulted in decreased gains. These three latter observations are based only on one experiment and further study is necessary to establish these observations as facts.

Treatment of Feline Distemper

In the opinion of J. L. Davidson and G. G. Stocking (*Vet. Med.* 47:99, 1952) feline distemper, also known and referred to as feline infectious enteritis and infectious feline panleukopenia, is a disease of a highly infectious nature and one that calls for rather specialized treatment. Feline distemper, like other virus diseases is characterized by sudden onset, rapid course, and rapid spread in catteries. Mortality rate is usually extremely high.

Davidson and Stocking point out that in past years treatment of this disease was unsatisfactory. Numerous complications were observed. Now, by use of new drugs and supportive measures available, little apprehension is held for any except advanced cases. Streptomycin is preferred in treating secondary bacterial invaders, at a dosage schedule of 0.1 to 0.2 Gm. once a day, subcutaneously. This antibiotic appears to be superior to penicillin. Of equal importance is adequate supportive treatment which includes subcutaneous injections of Ringer's solution and Solulexin. Lipoadrenal cortex is given intramuscularly, and Somagen-solubilized orally in milk or other food. By following the above medical regimen, results in treating feline distemper have been quite satisfactory. Occasional losses suffered are those referred *in extremis*.

Oral Bacitracin for Diarrhea in Dogs

The results of previous experiments made by W. N. Konde (*No. Am. Vet.* 33:36, 1952) on the value of orally administered bacitracin indicated that smaller doses of the antibiotic might be effective in controlling diarrhea in dogs. Therefore, in a new series of studies, the dosage of bacitracin was reduced to levels of 1,000 to 5,000 units daily. Results with the lower dosages were equally as good as those observed in the previous study, when dosages of 10,000 to 30,000 units were used. Of the 46 animals covered in this report, 37 (80 per cent) of them completely recovered. Some of the patients required two series of treatments to effect recovery. Three animals (7 per cent) showed improvement in the condition of the feces, but not complete return to normal consistency. Six cases (13 per cent) did not improve and required other treatment to cure the condition present. As in the earlier study best results were obtained in the nonspecific and secondary diarrhea group. Of the 29 animals in this group, 28 recovered and one did not. One of the 28 required a second course of tablets, at a higher dosage than the first course, to effect a cure.

Although bacitracin was not effective in a few instances, Konde points out that the drug has been found to be helpful in the majority of cases and so will be quite useful in the treatment of diarrhea.

Chick Feeding Trials with Growth Stimulants

In a paper presented before the Division of Biological Chemistry at the 121st meeting of the American Chemical Society, on March 25, 1952, J. R. Stern, J. C. Gutierrez and J. McGinnis reported that two feeding trials have been conducted to determine the effect of feeding several synthetic detergents and germicidal agents at various levels on early growth of chicks. Procaine penicillin and diamine penicillin were fed as positive control supplements. In the first feeding trial, chicks were kept on wire floors, and in the second trial, wood shavings were placed inside the batteries in an attempt to approximate floor conditions. In both trials, chicks which received penicillin were from 12 to 15 per cent heavier at the end of the 4-week experiments than those which were fed the basal diet. Chicks which were fed the detergent or germicide supplements, however, showed no increased growth rate.

In a bacteriological study conducted as a part of the second feeding trial, several samples inhibited aerobic growth of fecal bacteria at 10 to 100 times the concentration of penicillin required for inhibition. These samples, at dietary levels 10 to 100 times that of penicillin, failed to stimulate chick growth. These experiments are being continued with different samples being studied under varying conditions. Further results will be reported.

Stilbestrol Effect on Swine

In the Annual Report of the North Dakota Agricultural Experiment Station (Bulletin 371), W. E. Dinusson points out that the growth stimulating effect of stilbestrol, a stilbene derivative having female hormone activity, on beef heifers, beef steers, and fattening lambs has been demonstrated at various stations. Investigations with growing-fattening pigs do not indicate a like growth stimulating effect for that species. However, subcutaneous implantation of 12 or 24 mg. stilbestrol pellets resulted in some saving of feed. From 5 per cent to 12 per cent more feed was required by the controls as compared to those treated. The treatment also stimulated teat and mammary development of both sexes, caused a mild nymphomania and extreme swelling of external genitalia of gilts, and caused renewed sex desire in barrows. Treatment of gilts with the levels used is definitely not recommended because of possible overstimulation of the sex organs resulting prolapse of the uterus.

Vitamin A Utilization in Poultry Rations

Vitamin A, say E. H. Kramke, M. D. Lloyd and J. C. Fritz (*Poultry Sci.* 31: 49, 1952) is generally considered one of a few vitamins which should be considered carefully when formulating poultry rations. In their studies on some factors which affect utilization of this nutritional factor, they found that stabilized vitamin A dry supplements gave more than the expected vitamin A activity when compared with the U.S.P. reference standard oil solution. It is postulated that this discrepancy is due to loss of vitamin A activity when the oil is added to the basal ration. On a ration in which the only obvious source of vitamin A activity was 0.75 per cent alfalfa meal, chick growth was improved by the inclusion of crude soybean lecithin, defatted lecithin, or crude soybean oil. Addition of tocopherol or methylating agents had much less effect upon utilization of the vitamin A activity.

Addition of wheat germ oil to the basal ration permitted turkey poults to utilize carotene more efficiently for growth. Preformed vitamin A was well utilized under the conditions of this test without the addition of the wheat germ oil to the ration. In turkey starting rations essentially optimum growth of the poults was obtained with 2,250 U.S.P. units of vitamin A activity per pound regardless of whether the source of the vitamin A activity was vitamin A alcohol, natural vitamin A esters, synthetic vitamin A palmitate, or carotene supplied by alfalfa or an oil solution.

Feed Supplements and Lactating Cows

In work to determine the effect of supplementing the ration of lactating dairy cows with antibiotics or vitamin B_{12}, M. O. Haq, L. L. Rusoff and A. J. Gilpi, Jr. (*Science* 115:215, 1952) divided the test animals into four groups. Group I served as controls, group II received 130 mg. aureomycin daily, group III received 130 mg. tyrothricin daily, and group IV received 0.83 mg. vitamin B_{12} daily. All animals had good appetites and showed no evidence of diarrhea. The test period lasted 60 days. Standard plate counts made bi-weekly on the milk of each group showed that the feeding of antibiotics had no effect on the bacterial flora of the milk. All milk samples developed lactic acid on incubation and produced a normal acid curd. This, it was felt, indicates that the antibiotics either are not present in the milk at all, or else are of such a low concentration that they do not interfere with curd formation. These findings are particularly interesting because several investigators have reported that antibiotic treatment of mastitis by intramammary infusion resulted in the production of inferior cheese and other dairy products. The addition of vitamin B_{12} to the ration did not result in any increase in the vitamin B_{12} level in the milk.

Nutritional Deficiencies in Fur-Bearing Animals

In a paper presented at the Spring (121st) meeting of the American Chemical Society, J. K. Loosli and R. G. Warner discussed the symptoms of nutritional deficiencies of fur-bearing animals. They noted that not all the dietary essentials which are known to be required for other species have been studied in the case of foxes and minks. The quantitative requirements have been defined only for a few of the nutrients, but the deficiency syndromes relating to a lack of several other nutrients have been studied. An insufficient supply of dietary protein has been shown to result in a reduction in the rate of growth of both foxes and minks. The animals are smaller than normal and their fur fails to develop the desired length, density, and luster. A nutritional disease of minks called "yellow fat" appears to be caused by a dietary excess of unsaturated fatty acids. Supplements of vitamin E may alleviate the disease. In vitamin A deficiency there occurs, in addition to the changes reported in other species, a characteristic "head cocking" and a tendency for foxes to run in circles. Specific injury to the nervous tissue appears to be the cause. A marked increase in the incidence of bladder stones was reported in foxes fed vitamin A-deficient diets. Rickets have been produced in both foxes and minks fed diets deficient in vitamin D and calcium or phosphorus. Deficiencies of thiamine, riboflavin, niacin, pyridoxine, pantothenic acid, and folic acid appear to follow approximately the same course in foxes as in dogs. Of these only thiamine and folic acid have been studied using minks.

Thiocyanates for Skin Diseases in Dogs and Cats

A method of treating skin diseases of dogs and cats with dilute solutions of an emulsifiable 40 per cent solution of aliphatic thiocyanates is described by McK. Heath (*No. Am. Vet.* 33:103, 1952). Lauryl thiocyanate was the predominating thiocyanate present in the material. A consideration of the results obtained during the past eleven years, when this method was employed routinely in a private practice and in the small-animal clinic of a veterinary school, shows that it was approximately 90 per cent successful in curing skin diseases, including eczema, follicular mange, sarcoptic mange, and otoacariasis. The thiocyanate mixture was also effective against fleas, lice and ticks.

Booklet on Antibiotic Feed Stuffs

Antibiotic feed supplements, as well as the use of vitamin B_{12}, is discussed in a new publication issued by the Animal Nutrition Division of the Commercial Solvents Corporation. In addition to providing background and research data on the advantages of using these substances, the booklet also gives considerable information on the use of the company's feed supplements (Penbac, Baciferm-5, and Duoferm) in preparing swine, calf and poultry rations. A copy of this publication, entitled "Antibiotic Feed Supplements", can be obtained from the Animal Nutrition Division, Commercial Solvents Corp., Terre Haute, Ind. or 17 East 42nd St., New York 17, N. Y.

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Patent Thoughts and Trends

by Thomas Cifelli, Jr.†
PATENT ATTORNEY

PATENTS AND THE COLOR GREEN

It has been said by some "heavy" thinkers that if you really make an intensive study of just about any field of knowledge you reach a point where you become aware that to know your particular subject you have to know something about practically every field of knowledge in existence. This, I suppose, is just another way of saying that every field of knowledge, whether it be the drug, cosmetic or textile industries, is related to just about every other field of knowledge.

The field of patents appears to be no exception to this general rule, believe it or not.

To show that this is so, let us look for a moment at some of the topics which have been considered in these columns in the five and a half years that this department has been operating. We were not surprised to see that patents had a serious side, being tied in with world peace (February, 1948). Perhaps some of us were surprised to realize that patents even have a purple side, tolerating a double standard (July 1947). Then too, we saw that there was a connection between patents and the soothsayer's art (September, 1948). The relationship between patents and prices was also noted (May, 1947). Finally, we have even perceived a sporting aspect to patents, the relationship between patents and football having been treated also (October, 1947).

Now it appears that patents even have a color connection, and, at the moment at least, the favorite color for patents appears to be green, begorra.

Right now, even nature is in tune with patents in this color connection. For, its surface has changed from brown, white (the color that snow is in the postcards and country side) and black and grey (the color that snow is around the cities) to all-pervading green.

There are also man-made indications for all to see that patents and green go hand in hand at the present time. For one thing, recent newspaper articles have shown that there are times when the "folding" variety of green and patents meet. Reference is made to the more-than-$9,000,000 settlement which Ford and the English inventor, Ferguson, agreed upon to terminate their differences. We also have read in the popular press recently that Lever Brothers will have paid its licensor nearly $1,000,000 under a patent licensing arrangement by the time the arrangement expires this coming summer. While a cynic might say that the patent under which Lever Brothers is apparently licensed can only qualify for a pale green, as compared to the Ford-Ferguson situation, I think to most of us it still is pretty nice green, just the same.

In fact, if we look into the Lever Brothers' situation a little more deeply we actually find that the entire situation is green, for the patent license relates to green tooth paste, the tooth paste being green because of the presence of chlorophyll, or more accurately, water soluble chlorophyllins.

The patent under which Lever Brothers is licensed is U.S. 2,120,667, issued on June 14, 1938 to Benjamin Gruskin, of Philadelphia, Penna. and originally assigned to Lakeland Foundation of Chicago, but owned at present by Rystan Co., Inc., of Mt. Vernon, N.Y. The patent has already been upheld in the Federal District Court in Dallas, Texas, claims 6, 10 and 14, the only ones in litigation, having been held valid and infringed in a suit against Warren-Teed Products Co., the decision being reported at 92 USPQ 419. In an unfortunately rather brief opinion the court stated that:

> The ointment and solution of a drug which is produced from a green plant in such a carrier as to be non-irritable and to enliven good cells to the point of overcoming or crowding out, or making it impossible for bad cells to exist and continue their work of the destruction of the human tissues, is invention, even though such product may have been known and used for other purposes and in other methods and ways.

The Court also was satisfied that the product was a commercial success and that it had obtained recognition by "the physicians of the country."

Apparently all will not be smooth-sailing for the patent owner as it appears that Colgate, Block Drug Co. and Bristol-Myers have all filed suits seeking to have the Rystan patent declared invalid. These suits are understood to have been filed in New York and whether the New York Federal Court will agree with the Texas Court remains to be seen. For that matter, the possibility of settlement always exists and consequently all that one can do is to await the outcome.

Having put the cart before the horse by considering the legislative history of the patent to date, it might not be amiss to look at the actual patent and see what it teaches and claims. The patent is a little too long for complete reproduction in this article but insofar as possible direct quotations from the patent will be given, in order that the reader may learn what is in the patent and not merely be told what someone says is in the patent.

Field of the Invention

The inventor first stakes out the field to which his invention relates in the following language:

> My invention relates to an agent or substance for the therapeutic treatment of infections of the blood stream, infected parts, and for open cuts and wounds.

Objects of the Invention

The objects of the invention are stated as follows:

1. To provide an agent or substance together with the process of making the same which may be applied directly to infected parts or applied intravenously to the blood stream which agent has no deleterious effect upon the cells of the body nor upon the blood stream and which will eliminate bacteria in the sense of causing the cells of the body to resist the bacteria and/or their enzymes whereby the bacteria are weakened and caused to mutate;

2. To provide a substance which can be used in the therapeutic treatment of

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infected tissue areas and blood stream, which will selectively hinder the normal life processes of bacterial matter without adversely affecting healthy tissue;

3. To provide an agent or substance in such a form as to provide a means for stimulating tissue cells present in an infected part or in the infected blood stream and which will prevent the bacteria from further entering the cells and permit the normal formation of healthy granulation tissue;

4. To provide a non-poisonous agent for treating infected tissue areas or the blood stream either by direct or intravenous application.

5. To provide an isotonic cell stimulant which may be brought in contact with a bacterial infected area whereby to increase the resistance of the tissue and cause the bacteria to become attenuated, affording the infected tissue an opportunity to form a protective granulation; and

6. To provide a method for the treatment of infected tissue without interfering with the physiological life of the tissue cells which consists in introducing a novel cell stimulant or bacteriostat of isotonic nature, which cell stimulant will cause the tissue to resist the normal life processes of the bacteria, thereby allowing the tissue cells to granulate and heal.

Problem

The patent then goes on to explain the problem to which the inventor directed his attention:

Bacteria are recognized as vegetable organisms. Infectious conditions in animal tissue normally are the result of the entrance of bacteria into such a tissue area where they begin to enter the protein matter there present, liberating an enzyme which may attack the cytoplasm of the cells to form an albuminate thereof. This action, namely, the entrance of the bacteria and/or its enzyme into the cell produces a general deterioration which characterizes the onslaught of infectious disease conditions.

Solution of Problem

The key to the solution arrived at by Gruskin was the use of compounds known as chlorophyllins or chlorophyllin salts, these being water soluble chlorophyll compounds prepared by rendering chlorophyll (which is insoluble) water soluble.

The inventor discovered that water soluble chlorophyll, present locally in an infected area and in a suitable form, will cause the gradual attenuation of the bacteria there present until they finally leave the area. At the same time the formation of granulation tissue will be enhanced with the result that healing will take place rapidly. Thus it has been observed that infectious bacteria in the presence of the dissolved chlorophyllin and in contact with the cells of a host gradually assume a changed form, becoming less vigorous and progressively mutating. Because of this fact the cells of the host immediately resume their normal functions and form granulation tissue which pushes out the bacteria and acts as a protective barrier against further attack.

The inventor makes it clear that water soluble chlorophyllin, per se, is not enough to do the trick for he states that:

The chlorophyll tissue stimulant preparation employed must be dissolved in an aqueous medium. The medium furthermore should be "passive" or of a character not deleterious to the tissue or animal organism into contact with which the medium may come. One suitable passive medium, is, for instance, the physiological salt solution commonly known in the medical profession as saline solution, although various substantially iso-tonic or bland preparations are usable, depending in some measure upon the particular location and nature of the infection to be treated.

Various examples are given of special preparations, including those for the intravenous injection of a physiological salt solution; a preparation for the treatment of sinus infections; a viscous and tenacious preparation for application to throat infections; and a preparation for use in the treatment of osteomyelitis and other bone infections.

The method of application is as follows:

The chlorophyll preparations are employed generally by situating them in direct contact with the infected area. In the treatment of open discharging wounds or in cases where sinuses are formed, the chlorophyll preparations may be applied in Dakin's tubes or in the form of dressings wet with chlorophyll solution. Effort is made to maintain fresh chlorophyll solution continually in the region of the infected area for relatively long periods at a time.

Infections Treated Successfully

It is also said in the patent that preparations in accordance with the invention have been successfully employed in the treatment of many types of infections including osteomyelitis of staphylococcic origin, empyema of the lung of pneumococcic origin, periephritic infections with the colon bacillus, peritonitis of streptococcic origin, sinus infections and streptococcic bacteriemia, as well as ordinary infections producing head colds.

Typical Claims

Some typical claims are given below:

1. A cell stimulating composition for use in the treatment of infections comprising a water soluble chlorophyllin dissolved in an aqueous carrier.

6. A cell stimulating agent for use in the treatment of infections comprising a a water soluble chlorophyll dissolved in an aqueous phase and supported by a carrier of substantially non-deleterious character.

10. A cell stimulating agent for use in the treatment of pyogenic infections comprising a sodium copper chlorophyllin and a substantially iso-tonic carrier therefor, the carrier containing water in which at least a part of the chlorophyllin is dissolved.

14. A cell stimulating agent for use in the treatment of infections comprising a water soluble chlorophyll dissolved in a carrier comprising lanolin.

It will be observed that all of these claims (and the same is true for the others not reproduced here) call for the use of water soluble chlorophyllins in an aqueous medium.

Accordingly it is clear that any preparation in which the water soluble chlorophyllin is not employed in an aqueous medium is apparently free of the patent.

Fritzsche Prize Winner Naves Gets Patent

By a somewhat unusual coincidence, an inventor won a patent issued at just about the same time he was awarded a prize for outstanding research work which included the work for which he won a patent.

The inventor referred to is Dr. Yves-Rene Naves of L. Givaudan & Cie, Geneva, Switzerland; the prize was the Fritzsche Award of the American Chemical Society; and the patent was U.S. 2,589,275, issued on March 18, 1952 to Dr. Naves and assigned to The Givaudan Corporation.

Dr. Naves' work has been mainly in the field of olfactory materials, involving complicated terpene structures. In seeking the answer to problems which had baffled outstanding chemists Dr. Naves was not content to resort to the usual chemical methods employed for purposes of abbau (analysis) and aufbau (synthesis), but pioneered in the use of optical methods in working out chemical problems in the olfactory field.

One of the problems to which Dr. Naves directed his attention was the structure and synthesis of alpha-irone, one of the most famous natural odoriferous substances, present in the iris flower.

In developing a synthesis for the preparation of alpha-irone (after Dr.

(Continued on page 670)

(*Continued from page 669*)

Naves had determined its structure) Dr. Naves found it necessary to blaze new chemical trails and in this connection to develop a workable process for the preparation of 3-methyl-citrals, an intermediate in the alpha-irone synthesis. The invention covered by U.S. 2,589,275 is the result of this particular problem.

The Naves' process for making 3-methyl-citrals involves essentially the treatment of 3-methyl-linalools, in an aqueous emulsion, with a mixture of sodium bichromate, sulphuric acid and water, at a temperature from about 60° to 95°C.

A.D.M.A. Meeting

(*Continued from page 613*)

locytosis in humans may be developed. Such a procedure would greatly assist medical research. This program was started less than a year ago, under the leadership of Dr. Raymond Rice and Dr. Elmer Sevringhaus of the Medical Section."

In reporting for the Legislative Committee, General Counsel Leslie D. Harrop said:

"The abusage of generic names in foreign countries has an immediate effect upon the exportation of certain products by American manufacturers to the areas concerned. It is gratifying to learn that the World Health Organization is taking steps to bring about a world wide recognition of the desirability for uniform non-proprietary names. The American Medical Association has also taken an interest in this problem.

"In the patent field we were successful in gaining the abolition of a policy which, if pursued, threatened to greatly limit the protection afforded to inventions in the field of therapeutic compounds. The office had started to reject claims to new chemical compounds unless they were satisfied with proof of efficacy and safety. Such a rule, if imposed, could work a real hardship by blocking adequate patent protection in many cases. The chairman and members of the Committee deserve full credit for alertness and persuasiveness. After a number of conferences with the Commissioner of Patents and his staff, the Office reinstated the allowance for these claims to new chemical compounds whether or not efficacy and safety have been proved. This does not apply however to any compounds for which the cure of cancer is a claim."

With regard to Federal control of barbiturates, Mr. Harrop said:

"On December 12, 1951, a committee composed of Walton M. Wheeler, Jr., Chairman, and Messrs. Coburn, Gerden, and Sibley met with Deputy Commissioner George P. Larrick of the Food and Drug Administration and Messrs. Goodrich, Harvey and Cook of that Agency.

"At this meeting the representatives of the Food and Drug Administration outlined their problems in regulating the sale and use of barbiturates. Unauthorized sales by retail pharmacists they said constituted a major part of the problem. They admitted however that such sales are already decreasing and that with

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the powers granted under the Durham-Humphrey law this phase of the problem should be well controlled. Coupled with this was the associated problem of unauthorized refilling of barbiturate prescriptions. The new law expressly forbids any refills unless they are authorized by the physician. The most serious portion of the over-all problem however was, the Food and Drug officials stated, the illicit distribution of these drugs. In other words the bootleg traffic in barbiturates appeared to be the immediate if not the ultimate problem to be solved.

"Mr. Wheeler's committee is still working on tentative drafts of legislation which might be proposed limited however to control of the illicit traffic in barbiturates. It is our desire to achieve this end without resort to the licensing provisions that are favored by the Food and Drug Administration.

"It appears highly unlikely that such a controversial subject will be resolved by legislative action during this session of Congress. However it is not impossible. It may be that the Section will be forced to deal swiftly with sudden developments. This possibility has been foreseen and we believe we are prepared.

"Because of the lack of substantive evidence on the scope of the problem and because of lack of proof as to how remedial will be the Durham-Humphrey powers we have made no attempt to reach any conclusions aside from the desire to keep controls over the legitimate distribution and use of these drugs to a minimum."

Considering control over the quality of medicinal preparations, Mr. Harrop said:

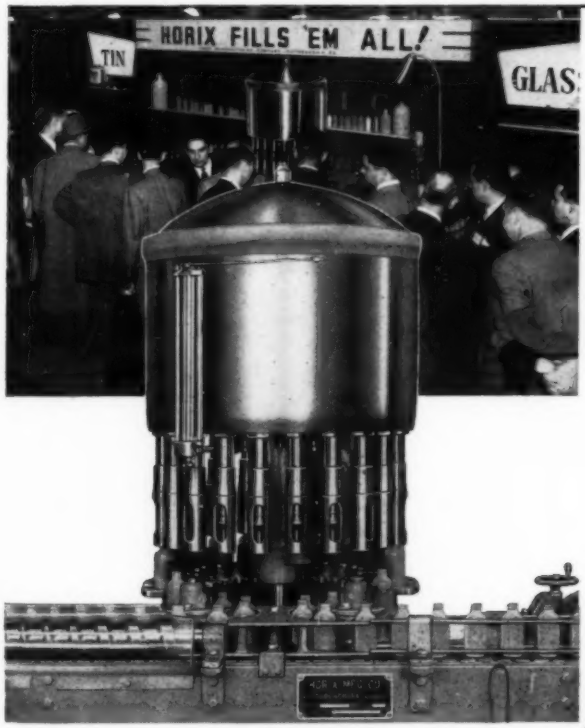
"Because of the fact that we constantly keep referring to our own high standards it was thought that it might be well to again examine the situation. Can we justly claim, as we do, that nearly all of the standards imposed by law merely duplicate controls which we have for many years prior to such laws voluntarily imposed upon ourselves?

"To this end we circularized the membership asking for a report on the total number of control tests and assays carried out by the firms during the year 1951. Such totals were to include tests of all kinds on raw materials, batches in process, and finished products. It was to be limited to pharmaceuticals and medicinal chemicals.

"Approximately 17,000,000 assays and tests were performed during 1951 by A.D.M.A. member firms. On an average of 1,000 times each working day checks were being made to insure the faithful compliance of our products with their labeling standards."

Pharmaceutical Contact Committee Chairman Frank O. Taylor said that although the committee was "designed originally as a means for cooperating with the Food and Drug Administration in the development of unofficial standards for drugs, and methods of test and assay, its work has necessarily included extensive cooperation with the revision committees of the U. S. Pharmacopoeia and the National Formulary because

(Continued on page 684)



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Orange and Citric Acid Syrups

Since polysorbates have a "solubilizing" property, J. A. Nees and E. P. Guth (*J. Am. Pharm. Assoc.*, Pract. Ed. 13:100, 1952) felt that these compounds could be used in the extraction of flavoring principles from natural sources, such as sweet orange peel and lemon peel. In their work, 5 Gm. portions of grated sweet orange peel were macerated with menstrua consisting of varying portions of Polysorbate 20 (Atlas Powder Co.) in water. The polysorbate concentration varied from 2 to 6 per cent of the grated peel. Another series of extractions was made by maceration using 5 Gm. of grated peel and a menstrua containing 20 per cent alcohol and varying percentage of Polysorbate 20. Macerating time varied from 30 minutes to 105 minutes. The extract was obtained by filtration in a Gooch crucible and sufficient water added through the filter to make a volume of 25 cc. The finished extract therefore represented a 20 per cent concentration of the fresh peel. The same series of extractions were made using grated lemon peel. Syrups were prepared with each of these extracts according to the following formulas:

Syrup of Orange

Extract of orange peel	**2.5 cc.**
Citric acid	**0.5 Gm.**
Sucrose	**82.0 Gm.**
Distilled water, to make	**100.0 cc.**

Syrup of Citric Acid

Extract of lemon peel	**2.5 cc.**
Citric acid	**1.0 Gm.**
Sucrose	**82.0 Gm.**
Distilled water, to make	**100.0 cc.**

In all cases the syrups prepared with the polysorbate-containing extracts produced syrups of characteristic color, odor, and taste of the respective fruits. The bouquet of each syrup surpasses that of the official syrups. It was the considered opinion of several individuals that the taste of the syrups made with the polysorbate extracts was superior to the official syrup. The extracts containing alcohol produced syrups with a distinct increase in "tang," but not sharply so. All the polysorbate syrups maintained their excellent properties through two months of shelf life, whereas the official syrups showed signs of deterioration. Compatability tests were made with ammonium chloride, sodium bromide and tincture of digitalis. It was concluded from these data that syrups prepared with the polysorbate extract are satisfactory as pharmaceutical vehicles from a compatibility standpoint and superior to the official syrups in regard to masking ability.

Sense of Smell

In an address given at a meeting of the Royal Society, E. D. Adrian presented a comprehensive discussion on the known physiology of the sense of smell. Some of his observations have been summarized editorially in the *British Medical Journal* (2:1391, 1951), as follows: "Sensations of smell are chiefly interesting for their great variety. The olfactory organ is very large, with a sensory surface which in many animals is much greater than that of the eye, and clearly there must be some differences in its reaction to all the different kinds of molecules which have a distinctive smell. It is not difficult to record the nerve impulses which are sent from it into the brain when it is stimulated by smell; they are of the familiar kind with the frequency increasing with intensity of excitation, and from a study of these impulse discharges we might hope to find out how olfactory discrimination is accomplished. It is too early to give a definite decision, but it looks very much as though discrimination depends in the main on differences in the general distribution of excitation over the whole organ, in the spatial and temporal pattern of the activity set up by the arrival of different kinds of molecule. There are slight but distinct differences in the sensitivity of different receptors to different kinds of smell, for when we use threshold concentrations we often find that the impulses are set up in different conducting units; there is no rigid differentiation of the receptors, however, for most of them react to most smells when their concentration is much above the threshold. But the receptors with these slightly different properties are not evenly distributed over the whole organ, and so it comes about that particular smells in weak concentrations have their greatest effect in particular regions. This regional effect turns mainly on the solubility of the stimulating substance in the watery layer which covers the olfactory membrane: at all events substances which are slightly soluble in water have a greater effect in the anterior parts of the organ and those which are soluble only in oil have a greater effect in the posterior parts. There is a similar distinction in the speed of the reaction, for the latency of the discharge is considerably shorter with water-soluble than with oil-soluble molecules. Clearly there must be other factors involved, chemical as well as physical, if the organ is to give a distinctive pattern of excitation for every kind of smell, but its surface is large and there will always be outlying regions which are reached by only a few of the molecules, so that slight differences in sensitivity may well show up in the distribution and timing of the discharge from different parts of it.

"Studies of the olfactory organ thus place the emphasis more on the whole pattern of the discharge from it than on the reactions of the individual receptors, though these certainly determine the pattern. But the emphasis ought really to be shifted still further. The olfactory organ is not the only sensitive structure in the nose. The whole of the surface of the elaborate turbinate bones in front is supplied by sensory fibres from the fifth nerve, and many of the substances which we can smell excite these sensory endings as well as those in the olfactory organ. . . . "When we compare our own rather simple olfactory judgments with those of an animal which depends as much on its nose as on its eyes, we see even more clearly how behaviour is guided by complex clues from every available source. . . . In fact the nervous system will be guided by a picture of the largest possible size, each item of which has been actively focused. The neurophysiologist has still a great many problems concerning the individual re-

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"BUT HOW'S IT GOING TO TASTE?"

At the moment any new medicinal is about to be "taken," the question most important to the patient—and to the manufacturer who produced it—is this: "How's it going to taste?" An accurate clue to the product's eventual success or failure might well be found in the taker's unguarded response. Should it be: "Tastes awful!", the manufacturer will be wise to take quick measures for its improvement. Contrariwise, an "Um-m-m, . . . not bad!" could be a good augury for its future. But unless the pharmaceutical manufacturer can offer a preparation that is truly palatable, he might better withhold its distribution until he has applied the recommendations of some reliable flavor specialist for its improvement. *FRITZSCHE has the specialists who can advise you.*

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ceptor cells, but the interest is shifting to their collective effect. The problem for the future will be to decide how the nervous system can react as it does to such a picture, how it is recognized, and what determines the next step that the organism should take."

Lippia Carviodora Oil from Somaliland

A sample of dried leaves of *Lippia carviodora* from Somaliland Protectorate were examined by H. T. Islip and W. S. A. Matthews (*Colonial Plant & Animal Prod.* 2:96, 1951). They report that the oil obtained on steam distillation of the leaves was clear pale yellow in color and had an odor reminiscent of caraway. It was found to have the following constants:

Specific gravity	**0.9307**
Optical rotation	**+65.650**
Refractive index	**1.4913**
Acid value	**0.2**

Chemical examination of the oil is as follows; the figures being given in per cent:

Ketones, mainly *d*-carvone	**67.3**
Free alcohols, probably mainly linalool	**2.9**
Acids, as acetic	**Negligible**
Esters, probably mainly linalyl, as acetate	**0.7**
Terpenes (mainly *d*-limonene), sesquiterpenes and undetermined	**29.1**

In a comparison of physical properties and chemical composition, it was observed that the characteristics of the oil from the leaves from Somaliland is very similar to the oil obtained from Kenya. It was also determined that the *d*-carvone isolated from the Somaliland oil compares favorably with that obtained from caraway seed oil.

Artificial Neroli Oil

Orange flower oils, says F. Chatelain (*Perf. & Essent. Oil Rec.* 42:405, 1951) are extensively used in perfumes. Bigarade (bitter) neroli oil is employed, for example, in the finest Cologne water and most perfumes. Because of their high price, these natural oils are often sophisticated, being replaced by artificial oils. The product that is employed most to sophisticate natural neroli oil and to prepare artificial neroli oil is Paraguay Petitgrain oil. Owing to its high specific gravity and rotatory power, Paraguay Petitgrain oil is fractionated (under vacuum) to take off too heavy and too laevogyrate portions. Sometimes owing to its high ester content Paraguay Petitgrain oil is saponified in order to convert esters into alcohols. The following table presents data on the portions obtained after fractionating a 100-pound lot of the oil:

Portions	*Specific gravity*	*Rotatory power*	*Solubility in 80% alcohol*	*Index of refraction*
No. 1	0.869	-1°40′	2 vol.	1.462
No. 2	0.894	-3°40′	1 vol.	1.459
No. 3	0.905	+1°10′	2 vol.	1.462

In addition to variations in constants, the three useful portions also vary in composition. Thus, the first portion contains terpenes and linalol; the second, linalol, geraniol and a part of the esters, and the third portion contains only esters. With the aid of these portions it is possible to prepare artificial neroli oils. Six illustrative formulas for making such artificial oils are given; the following two being typical examples:

I

Portion No. 1 of fractionated Paraguay Petitgrain oil	**60.0**
Portion No. 3 of fractionated Paraguay Petitgrain oil	**230.0**
Linalool (from rosewood)	**680.0**
Benzaldehyde (benzoic aldehyde)	**0.4**
Indol	**1.0**
***Alpha*-Amylcinnamic aldehyde**	**0.3**
Coriander oil	**3.0**
Methyl anthranilate	**3.3**
Phenylethyl alcohol	**10.0**
Italian lemon oil	**12.0**

II

Portion No. 1 of fractionated Paraguay Petitgrain oil	**135**
Portion No. 2 of fractionated Paraguay Petitgrain oil	**245**
Portion No. 3 of fractionated Paraguay Petitgrain oil	**90**
Bergamot oil	**175**
Lemon oil	**35**
Methyl Anthranilate	**4**
Rosewood oil, Cayenne	**150**
Linalyl acetate	**110**
Palmarosa oil	**6**
Geranyl acetate	**35**
Phenylacetic acid	**1**
Terpineol	**14**

According to Chatelain, when mixing 50 per cent pure Bigarade Neroli oil with 50 per cent artificial neroli oil (as prepared from the above formulas), a good oil is obtained—one that is of the same quality as that usually employed in high grade perfumes.

Chatelian also notes that sweet neroli oil is obtained by distillation of sweet orange flowers from sweet orange trees growing in California, Guinea or Portugal. It is not difficult to convert this sweet neroli oil into Bigarade (bitter) neroli oil according to the following formula:

Sweet neroli oil	**994.0**
Bitter almonds oil	**1.5**
Methyl anthranilate	**4.5**

Masking Castor Oil Taste

In a report in the Scientific Edition of the *Journal of the American Pharmaceutical Association* (40:637, 1951), D. N. Entrekin and C. H. Becker pointed out that although there has been some work using imitation flavors to disguise the taste of distasteful drugs, there has been little or no work done on disguising the taste of castor oil with imitation flavors actually produced in the laboratory from chemicals, aromatics, and such, normally used in the preparation of these concentrates. To remedy this situation, an investigation was made to determine the relative efficacy of some imitation flavored and official syrups as disguising agents using castor oil as the obnoxious-tasting drug.

Their results show that most imitation flavored syrups used in this investigation were significantly better than water for disguising the disagreeable taste of castor oil. However, none of the syrups used, official as well as imitation flavored, were significantly better than syrup, U. S. P. Cacao syrup, U. S. P., gave the highest mean disguising potential, while the aromatics of aromatic castor oil, N. F., gave the highest mean obnoxious potential of the syrups used. Imitation coconut syrup gave the highest disguising and obnoxious potentials of the imitation flavored syrups. The abilities of the syrups to disguise the taste and the obnoxiousness of castor oil were not consistent. This fact indicates that a vehicle which would disguise the initial taste of the oil would not necessarily be of any great value in masking its obnoxiousness.

Flavor concentrations as well as the sugar and acid concentrations of the imitation flavored syrups were kept constant throughout the investigation. There were reports by some subjects that these concentrations were too high and others thought them too low. An investigation varying these factors should yield interesting results. Entrekin and Becker suggest that different flavors, variation in concentration of flavor, sugar and other synergists, and other factors, should be considered for additional work.

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by Jill Jessee

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Vitamin B_{12} in Neurology

Recent reports point to the growing importance of vitamin B_{12} in the field of neurology. For example, in the study made by S. M. Sancetta, P. R. Ayres and R. W. Scott (*Ann. Int. Med.* 35: 1028, 1951), 12 diabetic patients with neurologic disturbances were treated with vitamin B_{12}. No other therapy was employed except insulin and dietary control. Complete neurologic remission was achieved in four patients; in one it occurred after partial relapse. Almost complete remission was attained in three patients, improvement in three, and questionable improvement in two. The vitamin B_{12} was given intramuscularly in varying dosages. The workers recommend 15 to 30 micrograms daily the first one to two weeks, followed by a maintenance dose of 15 to 30 micrograms once or twice a week. Frequency of administration appeared to be more important than size of the dose. Massive doses did not appear to have a cumulative effect; but Sancetta and his colleagues recommend that these large doses be reserved for the refractory cases.

In France, J. Lereboullet and R. Pluvinage (*J. A. M. A. Foreign Letters* 148:667, 1952) reported on the use of vitamin B_{12} in the treatment of 74 patients with neurological disease. In 10 of 43 patients with multiple sclerosis, there were no positive reactions; in 16 patients with advanced cases, there were 4 instances of only subjective improvement. In 17 patients with cases of average intensity, there was noticeable improvement, and, in 4 instances, the patients were able to resume their normal occupations after years of illness and failure of all previous treatment. In eight patients with spastic paraplegia, including two cases of unknown origin and two cases that occurred after serious accidents, functional improvement was observed. In six out of eight patients with spinocerebellar syndromes of the acromegaly type, functional improvement and a diminution of ataxia were noted. Four patients, formerly invalids, were able to resume their former activities. In two children with cerebellar atrophy, vitamin B_{12} brought about an ambulatory state and a considerable dimunition of objective cerebellar signs. In seven patients with polyneuritis, including three with Korsakoff's psychosis, results were spectacular; the three patients with Korsakoff psychosis were cured within one week. The workers believe that vitamin B_{12} has a positive action on early polyneuritis but has no effect on old lesions.

Fluoridating Agents for Caries Control

At the present time, say C. L. Howell, L. E. Burney, H. G. Day and J. C. Muhler (*Am. J. Public Health* 42:44, 1952) there are approximately 100 communities fluoridating their water supplies, using either sodium fluoride, sodium silico-fluoride (sodium fluosilicate), hydrofluoric acid, or hydrofluosilicic acid. Undoubtedly there are several hundred more communities in one stage or another of planning for fluoridation. In considering the fluoride compound to be used, some communities are weighing cost, ease of handling, and engineering conveniences rather than dental-caries-reducing ability. Some authorities believe any fluoride compound soluble to the extent of one part per million behaves in a similar manner in solution. However, sodium fluoride as the fluoridating agent of communal water supplies is the only compound for which data are available to verify the caries-reducing ability of fluorine.

Over the past two decades, various theories have been propounded for reducing the incidence of human dental caries. Only the use of fluorides, however, has proved very successful and has given assurance of possibly reducing the general decay rate in the future. Only two methods of administering fluorides have any demonstrable importance, i.e., applying concentrated fluoride solutions topically to erupted teeth, and adjusting the fluoride content of the public water supply to an optimal compound of fluorine. On the basis of the former technique, the data indicate that a 2 per cent solution of sodium fluoride will reduce the incidence of decay in 7- to 17-year-old children by 40 per cent. At a fluorine level of 1 p.p.m. occurring naturally in a communal water supply a 60 to 65 per cent reduction in the caries incidence has been experienced.

Howell and his associates feel that there is insufficient evidence at the present time to justify the use of any fluoride compound other than sodium fluoride, except on a study basis, as the fluoridating agent of a communal water supply. Possibly other criteria besides the amount of fluorine available by analysis should be considered when evaluating new fluoride compounds to be used as fluoridating agents of communal water supplies.

Terramycin in Pediatric Practice

In a report on the value of terramycin in infections in infants and children, B. Wolman and A. Holzel (*Brit. Med. J.* 1:419, 1952) point out that the antibiotic is supplied in 50, 100, and 250-mg. capsules of the crystalline hydrochloride salt, and as a yellow crystalline powder which dissolves easily in a specially prepared cherry-mint-flavored liquid to make an elixir suitable for administration to infants and children. A special solution containing 25 mg. of terramycin as the crystalline hydrochloride, made up with 62.5 mg. of sodium chloride and 25 mg. of sodium borate, dissolved in 5 ml. of distilled water, is available for ophthalmic use.

In their study, a group of 66 infants and children with various infections were treated with terramycin, using a dose of 50 mg. per lb. body weight per day. Thirty-four out of 35 patients with pneumonia responded rapidly to treatment, in most cases within 24 hours. One patient with a Friedlander's bacillus pneumonia died. Ten patients with upper respiratory tract infections, six with tonsillitis, and three with pyuria also showed a rapid and dramatic response. Eleven out of 12 infants with purulent conjunctivitis responded rapidly to the drug. There were no toxic reactions.

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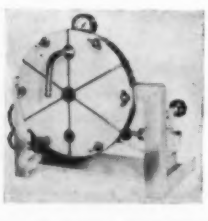

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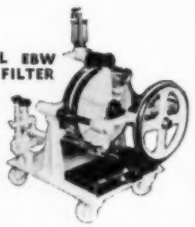

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Antacid plus Vitamin C in Peptic Ulcer

Impressed with the frequent recurrence of active ulcers in patients treated with the usual methods and the relatively short periods these patients remained asymptomatic, E. C. Nash (*Amer. Pract.* 3:117, 1952) undertook a study to determine if it were possible to decrease the number of exacerbations and lengthen the symptom-free periods. It was decided to test the effect of liberal amounts of vitamin C to the customary peptic ulcer antacid therapy because the role of vitamin C in maintaining tissue integrity and in promoting wound healing is fairly well established. It is also quite evident that peptic ulcer patients, either by prescription or voluntarily, often subsist on diets deficient in vitamin C.

The antacid used in the study had the following composition and was used in tablet form: Aluminum hydroxide gel. 0.195 Gm.; magnesium trisilicate, 0.325 Gm.; and sodium ascorbate equivalent to ascorbic acid, 20 mg. The investigation was made on 21 cases of confirmed peptic ulcer followed over a period of from 12 to 30 months.

Nash found that the addition of ascorbic acid (900 mg. in the beginning, later reduced to about 400 mg.) was followed by longer remissions and fewer relapses when compared to the control group without ascorbic and supplementation. No differences in the healing times were noted between the two groups.

Aureomycin in Peritonitis

According to A. M. Rutenburg, S. W. Jacob, F. B. Schweinburg and J. Fine (*New England J. Med.* 246:52, 1952), aureomycin was "remarkably effective" in the treatment of diffuse peritonitis of intestinal origin in 59 patients. The response was excellent in 47, doubtful in six and poor in one. Five other patients died, although in two the infection was effectively controlled. In most cases the convalescence was rapid and wound healing as fast as if no infection had been present. Aureomycin is superior to penicillin in the treatment of peritonitis. There was a significant incidence (20 per cent) of gastrointestinal toxicity such as stomatitis, esophagitis and diarrhea. No other toxic effects were noted.

Topical Neomycin for Pyogenic Infections

The February 2, 1952 issue of the *Journal of the American Medical Association* carries two articles on the use of the antibiotic, neomycin. In the first of these papers, C. S. Livingood and his colleagues report their experience with the topical use of neomycin in the treatment of cutaneous pyogenic infections.

A total of 264 patients is included in this series. Their results indicate that the preferable methods of local application of the antibiotic include an ointment containing 5 mg. per gram in a petrolatum-lanolin base and an aqueous solution of neomycin sulfate containing 1 to 5 mg. per cc., used as a compress, soak, or as ear drops.

In vitro sensitivity tests reveal that neomycin has an unusually wide antibacterial range, including practically all of the bacterial organisms which are encountered in skin infections. The *in vitro* tests indicated that neomycin is superior to the other antibiotics which were tested in respect to hemolytic Staphylococcus aureus, hemolytic Staph. albus, Pseudomonas, and Proteus, but its *in vitro* activity in regard to hemolytic Streptococcus is exceeded by bacitracin, aureomycin, terramycin, and chloramphenicol.

Excellent results with the topical application of neomycin were recorded in 88 of 95 patients with impetigo, impetiginized dermatitis, ecthyma, paronychia, and furunculosis. Neomycin is an effective therapeutic agent for the treatment of the bacterial factor in a significant percentage of patients with impetiginized eczematous dermatitis. The results which were obtained in a small series of patients with otitis externa were particularly impressive.

Localized cutaneous moniliasis developed in seven patients after prolonged local application of neomycin. This complication cleared up promptly after neomycin therapy was discontinued. No sensitization and/or primary irritant reactions to neomycin were noted in this series of patients, unless it is assumed that some of the patients in whom localized cutaneous moniliasis developed actually had a sensitization reaction; all patch tests were negative.

In the opinion of Livingood and his colleagues the topical use of neomycin seems to be a most important addition to the therapeutic armamentarium. On the basis of their experience to date, they feel that it is probably the local treatment of choice in the management of cutaneous pyogenic infections except in the case of some infections due to hemolytic Streptococcus. However, additional experience must be accumulated before determining its final place in the therapeutic armamentarium.

Similar views are expressed in the second report, by R. L. Kile, E. M. Rockwell and J. Schwartz. They also found that neomycin is a valuable antibiotic for topical therapy. In a series of 675 patients with skin infections, neomycin was more effective for most skin infections than other topical agents they have used. The sensitizing index of neomycin is very low, so that it may be used generally without fear of reactions. However, some patients with hemolytic streptococcic and pyocyanic infections did not respond satisfactorily to neomycin.

Sex Hormones in Breast Cancer

The value of the sex hormones in the treatment of advanced breast cancer is indicated in the report of E. F. Lewison and R. G. Chambers (*New England J. Med.* 246:1, 1952). In their clinical study, 80 women with advanced breast cancer were treated with androgens or estrogens for a minimum period of three months. These patients comprise a total of 97 case reports. A favorable subjective response was noted in 80 per cent of 57 patients receiving androgens and in 52 per cent of 40 patients receiving estrogens. Objective improvement in bone metastases was noted in 25 per cent of 32 patients receiving androgens and in 27 per cent of 11 patients receiving estrogens. Objective improvement in soft-tissue lesions was noted in 35 per cent of 48 patients receiving androgens and in 32 per cent of 34 patients receiving estrogens.

However, it is pointed out that the clinical response to sex steroids is unpredictable and without uniformity in the individual patient. The principal benefit of the estrogens appears to be in postmenopausal women, whereas the androgens may be of value regardless of age. An adequate total dose over a sufficient length of time must be administered to make certain of an optimum response.

Lewison and Chambers stress that the sex hormones are not a "cure" for breast cancer, but they do offer profound and gratifying benefits in patients beyond the scope of surgery or radiotherapy. By enhancing the subtle influences of hormones that are normally present within the body, cancer may yet be palliated, if, indeed, not conquered.

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Abreast Of The Markets

Essential Oil Inventories Quite Low; Replacements Necessary; Botanicals Very Sluggish; Vanilla Active

By the end of April there seemed to be an indication in the trade that many inventories in the essential-oil market were so low as to require prompt replacements. This is a condition which has not been seen in this market for over a year, since such heavy replacements were made just after the Korean War broke out in the summer of 1950. Apparently these stocks are dwindling to the point where re-entry into the market has become a necessity. This is definitely not the case in the botanicals, however, where there has been very little activity, and only a few minor changes in price.

All during the winter months of 1951 and the first three months of this year, buying in essential oils was done on a slight scale. Consumers were mostly standing by watching the prices on the various oils inch downward week by week, waiting for the opportune moment just before the advances began to occur in order to stock up on materials.

The oils in general can be divided into two categories, those that are on the firm side, such as anise and cassia oils (which cannot be replaced at the present time because of the embargo on Chinese shipments) and clove oil which is in a critical situation because of domestic regulations, and those showing more favorable conditions such as bois de rose, spearmint and peppermint, and sage oils.

One source reports that "distillation of domestic oils such as sassafras, birch, wintergreen, cedarleaf and certain of the pine oils has been retarded since producers hope through delayed production to perhaps realize better prices.

Botanicals, on the other hand, continued to be extremely quiet, and, according to spokesmen, there seemed to be very little business in sight in the next few months. No reports have been received yet on the condition of the domestic crops, or of the labor status. The coming crops of botanicals in the United States may suffer if the marginal labor is attracted by industrial jobs, leaving the roots and plants in the fields because of a lack of pickers.

Prices quoted in this section were current on the first of this month.

It is the same old story with the foreign botanicals—a story of delayed shipments, inferior quality in some cases, and reduced quantities. There is an indication, however, that the condition will not remain bleak too long, for information is continually received to the effect that consuming nations in Europe are beginning to reduce their imports because they have stocked up to about as much as they can handle. Indications point to a slow return to the American market in some items, as exporters realize they cannot continue to sell to Europe at the high prices and must reduce them in order to enter this market.

A turning point was reached last month in the case of menthol, for the price stopped declining for the first time in almost a year. Chinese material is very difficult to obtain, and demand is centering on Brazil. Realizing the development, the Brazilian producers will probably tend to maintain these figures or boost them once again. The other important factor affecting the situation is that consumers in the U. S. are finding their stocks quite depleted for the first time since the beginning of the Korean War, and they will have to replace them sooner or later.

There is still no change in the lanolin setup, as the ceiling price on the imported wool grease has not been changed yet, and more important, the textile industry has been moving very slowly for over a year, a factor which also restricts lanolin production.

Some sources report another reduction in cod liver oil, but the price seems to center aroung $1.65 a gallon.

All in all, the markets continued on the quiet side, and it looked last month as if there would be no change in the immediate future, depending, of course, on whether or not the Korean stalemate is settled and a peace finally arrived at.

Cascara Bark in Doubt

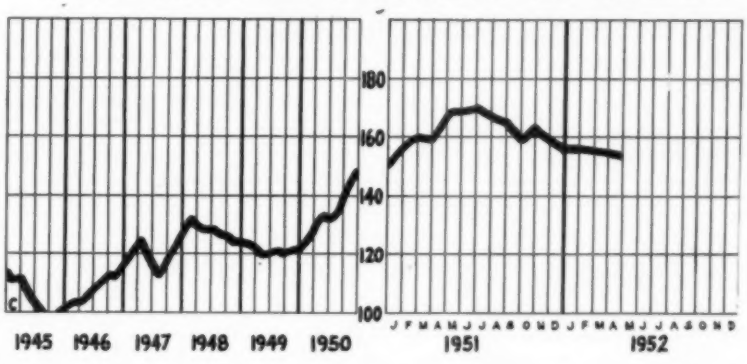
Although there was no price change in this item last month, the future of cascara bark appeared on the unfavorable side, for several spokesmen say there will be very little carry-over available before the new-crop material is ready. There have been no quotations on the new material yet, but it is believed it will be on the high side.

More Interest in Vanilla

Consumer interest in vanilla beans picked up last month, and although prices on the Mexican varieties were lower at the beginning of the month, it seemed entirely possible by the first week in May that they might exhibit slight increases if the interest persists.

(*Continued on page 682*)

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index continued down from 156.1 to 153.9. Alcohol and Balsam tolu were lower.

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Alcohol Cut Sharply By 17½c, Molasses Storage Problem Looms; Cod Liver Oil Displays Easier Tone; Lanolin Still Very Tight

During the first week in May the price of alcohol was suddenly reduced from 75c a gallon to 57½c, an action which resulted from the introduction of large quantities of the material on the market. This most recent development may bring the molasses problem to a head, since the Cubans at that time, were still sticking to their original 20c price, while interested buyers in the United States refused to do any buying until it fell to about 14c a gallon.

Storage facilities in Cuba were rapidly being filled to capacity, and several spokesmen indicated that there may be a price reduction on the blackstrap molasses in the near future.

The storage problem was relieved somewhat, however, by recent shipment of about 50,000,000 gallons to the United States which a leading distiller is reported to have contracted. Another 25,000,000 gallons is said to be slated for an importer who in turn supplies stock-food manufacturers.

The adjacent table, released by the Alcohol and Tobacco Tax division of the Bureau of Internal Revenue, Treasury Department, indicates the supply, production, withdrawals, and stocks of ethyl, completely denatured and specially denatured alcohol during the month of February, 1952, as compared with February, 1951.

Menthol Decrease Halted

For the first time in many months the price of menthol remained steady at $6.50 a pound for the Brazilian material and ranged up to $7.50 for the Chinese variety. Several quarters indicated that the downward price movement which has been in effect for almost a year appears to have been checked for the first time during that period.

Consumers have been existing off the large menthol stocks they purchased just after the Korean War began in 1950, and it is chiefly this material which has been the cause of the constantly falling market, because of the lack of demand on spot. It now seems that these supplies are finally reaching the low point where the consumers find it necessary to begin replacements. It so happens that, with the embargo still in existence on Chinese exports, menthol from that source has all but dried up, except for a few dwindling channels by way of European countries. As a result, demand for the Brazilian product is on the increase, and with it, the price may be expected to rise. Up to the present time, there has been much more Brazilian menthol available than there has been call for; now the tables are turning, and the trend is on the way up, or so it appears at the present time.

Production

	——Proof gallons——	
	1952	1951
Ethyl	42,421,490	34,721,108
*Completely denatured..	42,096	83,363
*Specially denatured	24,017,472	16,203,387

Withdrawals

	——Wine gallons——	
	1952	1951
†Ethyl, tax paid	1,788,300	3,880,581
tax free	51,251,330	33,429,181
*Completely denatured..	33,821	81,980
*Specially denatured	21,353,881	16,258,437

Stocks

	——Gallons——	
	1952	1951
†Ethyl	94,644,772	59,663,930
*Completely denatured..	38,584	45,628
*Specially denatured	13,569,355	1,487,408

* Wine gallons. † Proof gallons.

Cod Liver Oil Softer

There are some reports of a further reduction in cod liver oil to the level of $1.55 a gallon, and ranging up to $1.70. One factor in the easier tone is said to be that England is largely using its own domestically produced cod liver oil, which leaves that much more material on hand from Norwegian sources.

Magnesium Trisilicate Reduced 5c

Magnesium trisilicate powder, USP XIV was quoted at 45c for a 100-pound drum last month, and 43c for a 500-pound lot.

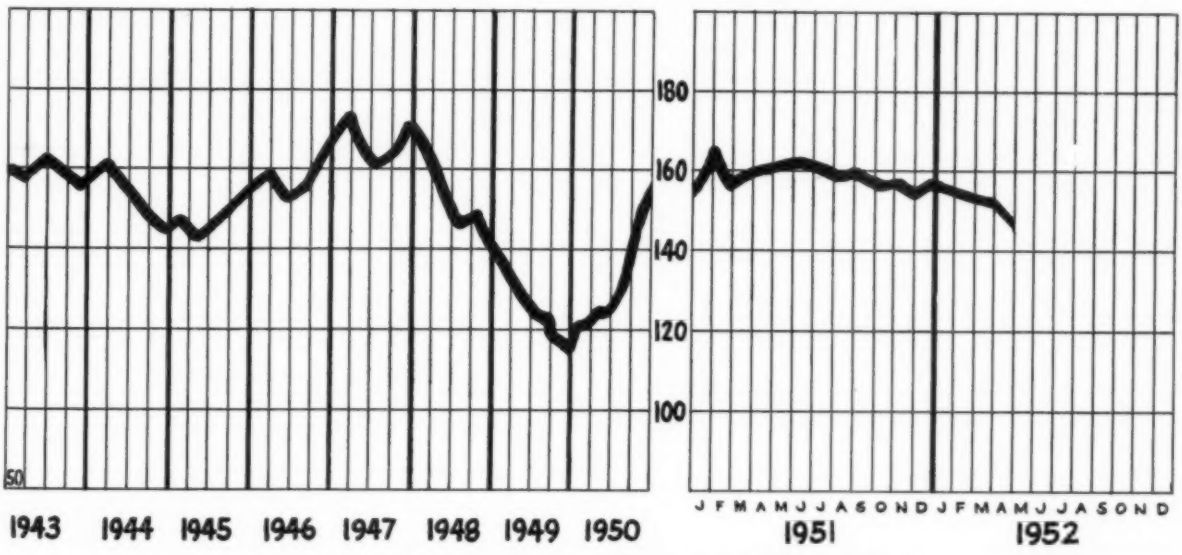
Balsam Tolu Lower

The balsam tolu market was in a more comfortable position last month, as represented by the 30c price decline to $5.05 a pound. Demand for the item had tapered off somewhat, and spot stocks were in good supply.

Lanolin Very Tight

There has been no relief in lanolin up to the present time, and the situation has become worse, if anything. First of all, wool scouring operations in the U.S. are almost at a standstill. The ceiling

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for April went down from 150.2 to 145.0.

April Price Changes

UP

Carnauba Wax No. 1 5c
North Country No. 3 1c
Echinacea Root 27c
Grapefruit Oil 25c
Spearmint Oil 20c

DOWN

Denatured No. 1 Spec. Alcohol 17½c
Anethol 5c
Anise Oil 5c
Balsam Tolu 30c
Caraway Oil 25c
Cocoa Butter 2c
Ergot $1
Helonias Root 30c
Lime Oil, distilled 50c
Mercury $5
Pennyroyal Oil 25c
Sandalwood Oil 25c
Vanilla Beans, Mex. Cuts 25c
Mex. Whole 25c
Wormwood Oil 15c

price on the imported wool grease has not been altered, and this is causing considerable hardship among the lanolin producers. The entire situation stems from the fact that the clothing industry itself has been in low gear for over a year, both in this country and abroad. In Europe, in fact, as well as in England, it is reported that wool processing and degreasing is continuing in very meagre quantities. There is no way of telling if or when any relief will come.

More Interest in Vanilla

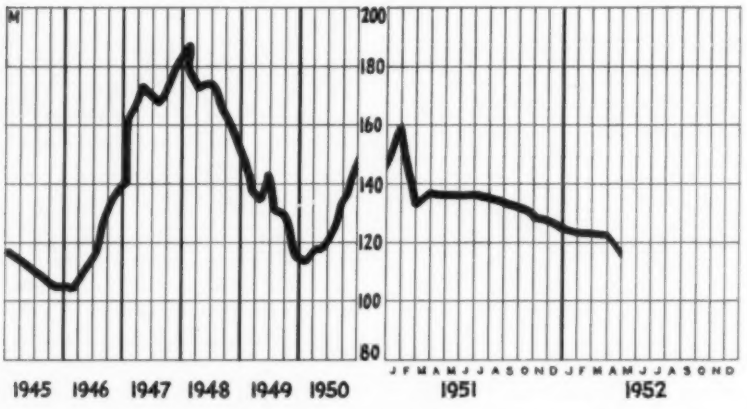
(*Continued from page 679*)

The bourbon beans showed no change over the previous month's $2.90 figure, but the Mexican cuts were down to $3.50, and the Mexican whole beans, down to $4.50.

Ergot Down $1

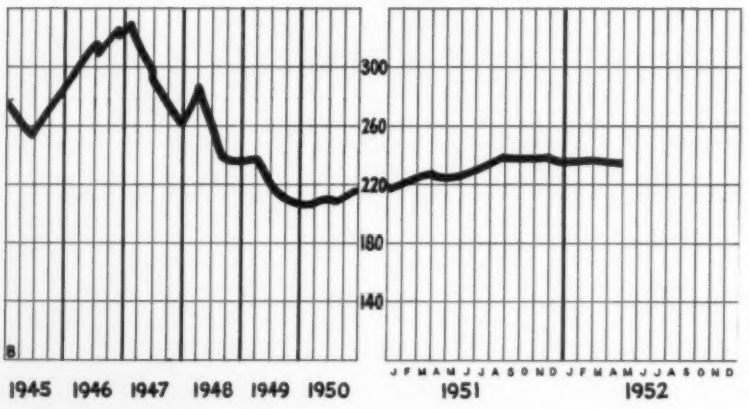
The first decline in many months occurred in ergot during the middle of April, and, according to one source in the trade stemmed from the fact that there was a good deal of material available.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index declined from 123.9 to 114.8. Alcohol and mercury were lower.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined slightly from 237.8 to 237.2. Balsam tolu and ergot were lower.

Ipecac Root in Good Supply

Ipecac root appeared in a very favorable light toward the end of April, chiefly because consumers in Europe, according to authorities in the trade, have satisfied most of their demands and have stepped out of the market entirely. This leaves much more material for the other consuming areas, and the United States will soon enjoy a buyer's market.

Arabic Gum Appears Firmer

Arabic gum has been unsteady during the past few weeks, showing several declines, but only recently it has become firmer, reportedly because of higher shipping prices and also because of heavy rains in the Sudan area. It is now believed the price trend will be reversed, and will continue upward during the next few months.

Cocoa Butter at 75c

Cocoa butter went down 2c to the 75c level, following a period of stability in which there have been very few price movements and more than enough material to handle the needs.

Glycerine Unchanged

Glycerine remained in the range from 34¼c to 35c in April for the refined grades, with demand for the material reported as fairly strong. The general tone of the glycerine market, however, was decidedly lower than during the latter part of 1951, and the government has not yet stepped up its buying to the anticipated level.

Quicksilver a Little Lower

Some lots of quicksilver were reported last month at $200 a flask, with the price ranging up to $204. At the same time, sources in the trade stated that some mines in the West have begun to resume operations now that Spring has come, and working conditions are more favorable than during the cold winter months.

Patchouli Oil Firmer at Source

Some dealers were quoting patchouli oil as high as $12.50 a pound during the latter part of April, while the lower end of the range appeared around $9.25. Reports from the origin had it that the oil there was becoming a good deal firmer, a development which may be felt on the spot market in the next few

months—in spite of the fact that there has been very little interest in the oil during the past few months. A second factor which might cancel any strengthening feature in the immediate months ahead is that the spot market is still heavily laden with oil that was purchased a year ago when the prices were on a much lower scale.

Wormwood Oil Reduced

Although there was only a small amount of wormwood oil available on spot last month, the price fell off from $7 to $6.85. Some dealers were selling the oil for as little as $6. Demand for this oil has been insignificant, and no matter how little oil has been available, the supply has more than satisfied the present needs of the market.

Pennyroyal Oil Down

In the face of a sluggish demand, and a comfortable supply on spot, this oil decreased in price to $3.35 during April. Reports indicated that the foreign oils were plentiful at the source, adding to the favorable atmosphere of the oil.

Clove Oil Remains in Dire Straits

The American clove oil market remained in a critical position throughout the month, awaiting new developments out of Washington on the restrictions imposed on import prices. Nominal prices continued to be quoted for the oil extending from $5 to $6.

Active Demand for Orange Oil

There has been no change in the price of orange oil, although demand for the item has increased by leaps and bounds during the past two months. Spokesmen reported that there was enough oil available to satisfy all normal demands. Production in both California and Florida seemed to be keeping up with the country's needs as far as any one could tell.

Grapefruit Oil at $2.50

Some essential oil houses were quoting this oil at the higher figure of $2.50 a pound during the month, which was probably a result of the increased interest in the item, now that the summer months are approaching. Other sources were still quoting it at the $2.25 figure.

Lime Oil Limited

Some lime oil was available on spot, but it was in very limited quantities. With the new crop oil not yet in sight, the spot material remained at a high range from $7.75 to $8.50 for the distilled oil, both from Mexico and from the West Indies.

Anise Oil Harder to Find

Spot prices on anise oil stayed at $1.75 on the inside figure last month, but the upper range inched up to $2.05, as replacements became more difficult to obtain. Until the present time, it has been said that much of the replacement material has been reaching this country through circuitous routes from China. In any event, as long as the embargo on Chinese shipments remains in force, anise oil, as well as cassia oil, will be difficult to import.

It may be that the critical nature of the oil has not been entirely recognized because of the currently low price of anethol ($1.30 a pound) which in some cases can be used in place of the essential oil. Were it not for this alternative product, the demand for anise oil itself would probably be quite a bit greater, and the available supply a good deal more tight than it is at present.

The concensus in the trade is that there is a large supply of oil in China at the present time which will be available to this country as soon as normal conditions have been restored.

Lemongrass Oil Steady

Lemongrass oil was selling for about $1.50 a pound by the end of the month, with reports that demand for the item was fairly active.

Peppermint Oil Unchanged

Up to the present time there has been a rather limited demand on peppermint oil, which has been reflected in the constant price range of the oil over the past few months between $7.25 and $8 for the natural and $8 and $8.50 for the redistilled oil. Some sources are of the opinion that the available material on hand at the present time will amply supply all needs until the new crop appears toward the end of the summer. There are others, however, who believe that the high-quality oil is disappearing and, if the present rate of consumption persists, a definite squeeze will occur, resulting in a higher price for the oil. The next month or two should tell the story.

Bois de Rose Firmer

Recent developments in bois de rose show a decided firmness in the spot market. Although the supply in this country several months ago was more than ample, the subsequent demand and consumption has cut the supply down greatly. The oil toward the end of April was ranging in price from $4.50 to $5.

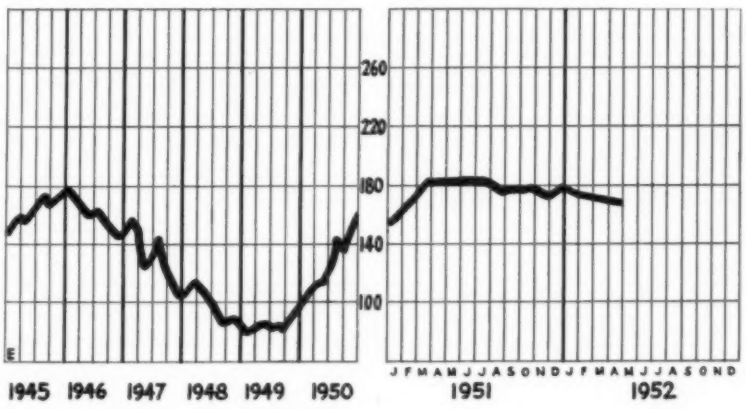
Bergamot Oil Still Firm

This oil continued to be very difficult to come by last month, and was being quoted from $15 to $17.50 in the high range in which it has been lodged for quite some time.

Although some additional shipments of oil arrived in the United States last month, the small amount did not help the situation very much. According to figures released by the Italian Consortium, the average yield of oil is set at 352,736 pounds, with the peak production in any one year amounting to 522,490 pounds, and the minimum, amounting to 165,345 pounds. The Italian domestic market consumes each year about 22,046 pounds of the oil, with the largest portion being exported.

Exports of the oil account for approximately 95 per cent of the production, with these amounting to about 330,690 pounds in 1951.

15 Essential Oils—Weighted Price Index. 1926 = 100



The essential oils index fell off from 168.0 to 167.5. Anise oil was higher; sandalwood oil was lower.

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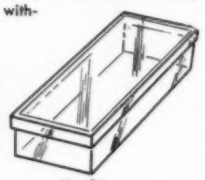

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(Continued from page 671)

of their legal status under the Food, Drug and Cosmetic Act. All of our work, however, is devoted . . . to studies of standard, methods of assay, tests, tolerances, and other problems pertaining to quality control.

"The rapid development in recent years of new medicinal substances, new methods of test, and new testing apparatus, has considerably increased the number and complexity of our problems. This has also resulted in a larger attendance at our meetings. With the increase in attendance it has become more difficult to attempt discussion of individual problems in the group as a whole, so more and more there is a delegation of work to smaller subcommittees where specific work can be considered in detail and general conclusions and recommendations reported later to the entire Combined Contact Committee.

"A new problem has arisen. Both the U.S.P. and the N.F. specify that containers for injections shall be clear and colorless or of light amber glass but must permit inspection of the contents. Containers for injections have been devised of plastic, of soft collapsible metal and of hard, non-collapsible metal. What recommendations can appropriately be made to the U.S.P. and N.F. regarding definitions, tests and inspections? As yet, we do not know, but the problem has been referred to a subcommittee appointed at our last meeting in March for study and subsequent report.

"A typical example of a problem which at first glance appears to be one of minor importance was one on which a final report was received at our March meeting, on a standard method for determining the bulk of finely powdered or crystalline chemicals. A study of this was begun about three years ago because of repeated differences of opinion between manufacturers of bulk chemicals and makers of their dosage forms regarding uniformity of volume compared to weight. An appreciable difference in the bulk of a given weight of some chemical may cause a marked difference in the size of tablets made from it or require capsules of different size, which in turn affects the size of bottles or other containers used for the finished medicament, to say nothing of possible changes in labels and packers.

"In the minutes of our March meeting will be found a recommended method of test based on a large volume of data studied by the subcommittee. Use of this method by both suppliers and purchasers will, we believe, prevent many controversies caused by differing methods of test. The subcommittee included men from most of the major producers of bulk chemicals and had as chairman Dr. Albert Q. Butler.

"Work on methods for the testing of enteric coatings is still going on and probably will continue for quite a while to come. Investigation of methods for testing enteric coatings has been carried out by many investigators during some forty years or more without any proposed method being accepted as a standard procedure. This subcommittee is practically the same one

that previously, after very extensive work, recommended a standard test method for disintegration of tablets and time limits for many tablets. This report formed the basis for standards now incorporated in the U.S.P. and N.F. It is hoped that by next year they may be able to propose a tentative test method which may be generally accepted as a standard test.

"Since late last summer, a subcommittee under the chairmanship of Dr. W. E. Gaunt has been studying the matter of assay and standards for various conjugated estrogenic substances. The problem is one of trying to find an acceptable method of assay for such substances which will be reasonably accurate and much less complicated than the extremely complex one devised by the Food and Drug Administration Chemical Division. The eventual findings will also have a bearing upon standards for certain medicinal substances of this type proposed for inclusion in U.S.P. XV. The problem came to our attention first because of differences of opinion between the Food and Drug Administration and some laboratories in our industry as to the significance of different methods of assay.

"Still another question of considerable moment to our industry is, what constitutes adequate testing for sterility of medicinal products which are required to be sterile? Perhaps it is better to put the question in this form, what constitutes adequate evidence of sterility in any particular lot of a product?

"Another subcommittee which has reached a semi-final stage of operation is that on the Assay of Mixed Sulfonamides, under the chairmanship of F. F. Berg. Their latest report includes a detailed statement of the proposed method of assay for each individual sulfonamide by a chromatographic procedure.

With reference to the electronic inspection machine for ampuls and vials of injections, Dr. Taylor said:

"It doubtless seems to you that this project has proceeded at a snail's pace since the first development model was shown at the Boca Raton meeting two years ago. The extensive tests made with that model showed several important defects which had to be overcome. Last year, I reported on a series of tests with a later model and these were most promising. The Radio Corporation of America was loath to freeze the design of the machine until they were reasonably certain no important changes in it were likely to be necessary in the near future. This, it seemed, was justifiable prudence. Greater speed could have been made but only at considerable greater expense. Some months ago, the design was fixed and the final drawings and blueprints for production could be made. There are now in production twenty machines to fill orders from twelve of the laboratories which contributed to the expense of the research. With each machine as delivered will go a booklet, now being prepared, describing the technical details of the machine, but in addition it is contemplated that an expert technician from RCA will see to the setting up and preliminary operation of each machine."

H. D. Piersma reported for the Biological Section,

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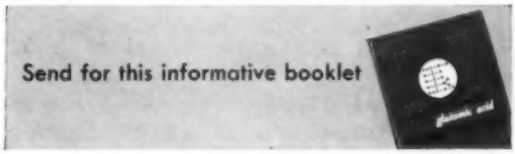

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saying "considerable interest exists in the production of a smallpox vaccine in dried form." Many firms are investigating the possibility of producing a product which is stable at higher temperatures and longer periods of time than the vaccine now being manufactured. There are, however, rather formidable problems to overcome, since experimental work to date in freezing and drying this vaccine has not yielded extremely satisfactory results. It is interesting to note that Smallpox Vaccine is perhaps our oldest and most widely accepted biological product, and that the last substantial contribution to improvement in manufacture took place over fifty years ago when the addition of glycerine was found to stabilize the vaccine.

One of the derivatives of human plasma, known as Immune Serum Globulin, was recommended exclusively for the modification or prevention of measles until a few years ago. As the result of extensive clinical research work, it is now possible to demonstrate the effectiveness of this product in the prevention of infectious hepatitis. Recent reports indicate the usefulness of this product in another disease of major importance, poliomyelitis and it is possible that presently available facilities in industry for the manufacture of this product may be inadequate.

"It appears that work on the purification of rabbit rabies vaccine, in an effort to reduce or remove the factors responsible for post-vaccinal reactions, is still in progress at the National Microbiological Institute. However, there are several difficult problems associated with this project, and the work yields results slowly.

Donald H. Gilmore, president of the Upjohn Company, was elected president of the Association. Vice-presidents elected were: Robert K. Cutter, president of Cutter Laboratories; J. H. Fitzgerald Dunning, of Hynson, Westcott & Dunning; Adam H. Fiske, Eli Lilly & Company; and George F. Smith, president of Parke, Davis & Co. Other officers are W. C. Eaton, president of Norwich Pharmacal Co., treasurer; and Dr. Karl Bambach, executive vice-president.

L. D. Barney, president of Hoffmann-La Roche, was elected to the executive committee for 3 years, and Francis Boyer, president of Smith, Kline & French, and W. G. Malcolm, president of Lederle Laboratories, were reelected.

Poison Ivy

(Continued from page 611)

substantiate the favorable results obtained by Schwartz and his associates. More recently, however, Novacorich reported that the addition of 10 per cent of chlorinated lime greatly increased the effectiveness of the ointment. Another sodium perborate-containing preparation that provides both mechanical and chemical protection is given[6] as follows:

Shellac	13 parts
Isopropanol	31 "
Linseed oil	4 "
Titanium oxide	12 "
Sodium perborate	13 parts
Talcum	20 "
Diethylene glycol monoethyl ether (Carbitol)	3 "

The third avenue to protection against poison ivy is associated with the allergic nature of poison ivy dermatitis. Although the results of the prophylactic administration of oral or intramuscular Rhus extracts are equivocal, such methods of desensitization are often used.

As noted in "New and Nonofficial Remedies,"[4] it is established that the majority of sensitive people can be made temporarily resistant to contact with poison ivy by the oral administration of concentrated extracts of the fresh leaves and twigs. More recent discussions indicate, however, that the large doses required are dangerous and the immunity is so brief that this procedure is impractical. For example, in studies on oral prophylaxis against poison ivy, Gold and Masucci[22] reported that the incidence of toxic skin reactions was high and the desensitization thus obtained was of rather short duration. Ellis[23] also noted that pruritus ani is a persistent and annoying complication of oral desensitizing procedures. However, as indicated by Craig,[12] oral desensitization should be tried for persons who cannot escape contact with the plant.

Injections of Rhus extract is the method of choice for desensitizing against poison ivy and the allied plants.[4] Although there are data[24] to the contrary, a number of reports[9,25,26] have indicated that such injections have conferred resistance to many susceptible persons to causual contact with the plants. Possible untoward reactions to such inoculations include local inflammation, malaise, fever, muscle pain, nausea, vomiting, urticaria, and angioneurotic edema.[14]

The antigen used for prophylactic immunization usually consists of the oleoresin of the plant. This is prepared by extraction of the plant with suitable solvents, and a number of variations in the extracting processes have been developed.[27,28] Since the same chemical substance is held responsible for the reactions,[9] extracts of poison ivy, poison oak, or poison sumac may be used interchangeably for the prophylaxis of the dermatitis caused by contact with any one of these plants[4]. Quite a number of preparations are available for this purpose. Because of the differences in production methods and resultant variations in resin concentration, the dosage schedule recommended by the manufacturer must be followed closely.

Many of these preparations are also recommended for the treatment of poison ivy dermatitis, to alleviate the symptoms, reduce swelling and inflammation, and stop the spreading eruptions. There is, however, considerable difference of opinion regarding the safety and efficacy of the extracts for such purposes. For example, the Council on Pharmacy and Chemistry of the A. M. A.[4] states that Rhus extracts will be considered for prophylaxis but not for the treatment of ivy, oak or sumac dermatitis. From his survey on

poison ivy extracts, Stevens[9] came to the conclusion that, "the treatment of the acute rash with ivy extracts should be discouraged, because many patients are made worse and there is no satisfactory evidence that any are helped."

Similar views have since been expressed by other anthorities.[12,29] Howell,[30] for example, has said that poison ivy extract is contraindicated for the treatment of acute Rhus dermatitis. In his opinion, the procedure has not stood the test of time and it has often been observed to do harm. Pertinent in this connection is the report of Shaffer, Burgoon and Gosman[31] of a fatal and near fatal case of acute glomerulonephritis following the administration of Rhus extracts for the treatment of poison ivy dermatitis. They feel that, because of their potential danger, such extracts should not be used in these cases of dermatitis.

Nonetheless, the practice of giving poison ivy and poison oak extracts in the acute stage of Rhus dermatitis is still a common procedure.[16] Although now condemned by many anthorities, the procedure was formerly accepted as good practice.[32]

Of interest at this point is Keil's[33] observation that intradermal injections of 3-n-pentadecyl catechol in oil was effective in a series of cases of poison ivy dermatitis. This compound, described as the saturated analogue of the active principle of the poison ivy plant, is a synthetic crystalline substance which is stable in oil solution, is easily handled, and can be administered quantitatively. When used therapeutically, it caused relatively rapid amelioration of subjective symptoms and probably shortened the course of the eruption. In this series of cases, Keil encountered no constitutional or other important side effects.

Many studies have been made to devise effective remedies for Rhus dermatitis. One index of the effort put into this work is the fact that over 700 remedies have been described in the medical literature.[11] As remarked by Hoagland and Myers,[34] the mere presence of many forms of treatment usually indicates that therapy is unsatisfactory. Nonetheless, among these varied materials and methods there are remedies that may be helpful in removing the poisonous principle or rendering it inactive and for giving some measure of relief from the irritation. However, as noted by Craig,[12] once vesicles appear, the condition lasts from six to fourteen days and is not greatly influenced by local or parenteral treatment.

According to Howell,[35] proper treatment of poison ivy dermatitis should give at least partial relief of itching, prevent secondary infection and promote healing. Obviously, the first step in achieving these aims is the removal, if possible, of the toxic agent from the skin. Washing with an alkaline soap and water immediatly after contact will remove much of the irritant and thus partially reduce the severity of the symptoms. The thorough washing and rinsing should be repeated several times, with special attention to the fingernails and the webs beneath the fingers. This measure, however, is effective only if undertaken

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within a few minutes after contact.[3]

The same holds true when solvents are used to remove the toxin. Andrews[8] recommends prompt and thorough scrubbing with benzine followed by rinsing with alcohol. In discussing the use of solvents, Goldman[17] warns that the careless use of these materials will cause the irritant to spread over the skin.

Another approach is the use of oxidizing agents to inactivate the toxic material. Among the substances used for this purpose are ferric chloride, potassium permanganate and sodium perborate.[12,16] Despite their tendency to stain the skin and clothing, ferric chloride solutions have long been used effectively by many people.[6] The preparation suggested during the discussion of protection against ivy poisoning is commonly used to treat the dermatitis. A 5 per cent solution of ferric chloride may be painted on the infected area, or the victim may use a 10 per cent solution of ferric chloride mixed half and half with glycerine.[13] Thone[7] mentions the widespread use of a 5 per cent solution of ferrous sulfate in a mixture of equal parts of water and alcohol, plus a little glycerine, if desired.

Potassium permanganate is very frequently used in the treatment of Rhus dermatitis even though it too has staining tendencies. According to Crooks and Kephart[6] the compound is apparently active in neutralizing any poison that may remain on the skin surface and it also has some therapeutic properties. They state that one of the oldest, well established remedies for poison ivy is a fresh solution made by dissolving one 5-grain tablet of potassium permanganate in one quart of water. For sponging on affected areas on the trunk, Andrews[8] recommends a 1:5,000 solution of potassium permanganate. The brown stain caused by such application will gradually wash off, or it may be removed from the skin by the use of lemon juice or a 1 per cent solution of sodium bisulfite. Stains on clothing are more or less permanent.

Potassium permanganate is also valuable as a wet dressing in treating other complications of Rhus dermatitis. For example, a 1:8,000 solution is advised[8] as a cold wet dressing when the parts involved are full and tense because of edema. If infection develops, Burks[36] finds that a 1:12,000 potassium permanganate solution forms a good wet dressing, because it is soothing, drying and antiseptic.

The use of sodium perborate is of more recent origin. Witherspoon[37] reported excellent results from its use in a series of 70 cases of poison ivy dermatitis. In the acute cases, he first applied compresses wet with a cold, 1 per cent solution of the compound. In 90 per cent of his cases, he found that 10 per cent of sodium perborate and 1 per cent of phenol in a greaseless ointment base gave very satisfactory results. The perborate oxidized the urushiol, while the phenol acted as an antipruritic.

Tannic acid is another remedy that has received rather frequent mention in the recent literature.[3,6,11,18] A 10 per cent alcoholic solution of tannic acid is used in the procedure recommended by the Public Health

Service[38] for the home treatment of mild cases showing a few small blisters on the hands, arms or legs. The instructions are to vigorously rub the areas with gauze soaked in the solution until the tops of the blisters come off. The tannic acid solution is then applied as a lotion, leaving the treated area exposed to the air. More solution is applied every six hours until three or four applications have been made. At these times, the tops of any newly formed blisters are rubbed off. The formation of larger blisters is an indication for a physician's attention. It is stressed that the tannic acid solution must not be used on the face or genitals.

Although it is often better to leave the inflamed parts exposed to the air,[6] there are times when appropriate dressings are indicated. Thus, cool wet dressings of 0.5 per cent aluminum subacetate (Burow's) solution or boric acid solution are applied to vesicular or edematous areas.[39] Burks[36] warns that pouring the solution over the compresses results in concentration and further irritation. By removing, rinsing and changing the gauze, excreta and debris from the area will be carried away. Undue maceration may be prevented by allowing the skin to dry for about 15 minutes every two to three hours.

According to Hoagland and his colleagues,[40] the application of warm moist compresses accelerates recovery when used on cellulistic-like lesions characterized by swelling, local heat and redness. They point out that patients with severe dermatitis may have such inflammatory lesions without secondary infection. The latter are effectively treated with penicillin and aureomycin.

Powdery suspensions are applied to papular areas. Undoubtedly, calamine lotion is the best known and most widely used preparation of this type. The official (U. S. P. XIV) lotion is frequently prescribed. Phenol is often incorporated to provide an antipruritic action, as in phenolated calamine lotion, N.F. IX. Of course, many other modifications have been suggested for this popular preparation. Illustrative is the following carbolated and mentholated calamine lotion, as suggested by Andrews:[8]

Menthol	**0.65 part**
Phenol	**4.00 parts**
Calamine	**30.00 "**
Zinc oxide	**30.00 "**
Glycerine	**30.00 "**
Alcohol	**30.00 "**
Witch hazel water, to make	**240.00 "**

Local anesthetics are sometimes included in calamine type preparations to allay itching and burning. A number of such products, including creams and ointments are on the market. Howell,[35] however, feels that preparations containing local anesthetics are best avoided because of the risk of sensitization. In contrast is the recommendation by Hoagland and his associates[40] that creams or solutions containing local anesthetics, perhaps with antihistamines, be used in the treatment of Rhus dermatitis.

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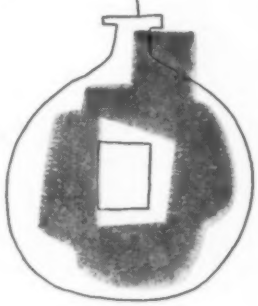

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•

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The scramble to succeed him, in Democratic ranks, finds Senator Kefauver competing with Gov. Adlai Stevenson. The noise of the Dixiecrats has died down to a Georgia rustle and Oklahoma's Bob Kerr is learning not to confuse success in industrial oil with the peddling of political applesauce.

•

Republican chances haven't been so bright in years. Nobody knows what Eisenhower stands for but nearly everybody approves of it; everybody knows what Taft stands for except that it reads differently in his book; Stassen will soon be passin' and with a New Deal attitude, Warren seems foreign.

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As might be expected from the allergic nature of poison ivy dermatitis, antihistamines have also been incorporated as antipruritic aids in calamine type lotions and creams. In several instances an antihistamine serves as the sole or main active ingredient in ointments or creams for alleviating the itching of Rhus dermatitis and other common dermatoses. One group of investigators[41] found such an ointment to be "a very valuable adjunct" in the treatment of contact dermatitis due to plants, especially poison ivy. Other studies[34] gave some indication that the local use of an antihistamine ointment may accelerate healing in Rhus dermatitis. Howell[35] has suggested that during the involuting, drying stage of the dermatitis, creams containing antihistamines may be tried.

The effect of orally administered antihistamines, alone or in conjunction with topically applied antihistaminic agents, have also been studied.[34] Beneficial results have been reported by some workers,[42,43] but others[1,40] observed no subjective or objective improvement from the ingested drugs. However, one widely consulted reference text[14] advises that the oral administration of antihistaminic drugs will relieve many patients with dermatitis venenata.

In addition to the products already mentioned, other types of topical preparations are often recommended[8,35] and newer combinations are being developed. In the latter category is an ointment of the following composition which was used by Cronk and Neumann[44] to treat 47 cases of poison ivy dermatitis:

Zirconium oxide	**4.37**	**per cent**
Stearic acid	**13.46**	" "
Potassium, as KOH	**1.86**	" "
Glycerine	**2.28**	" "
Water and Co_2	**78.03**	" "

In 39 of the cases, application of this zirconium hydrate ointment resulted in relief of pruritus and regression of the dermatitis within 24 hours after starting therapy. None of the 49 cases in which the ointment was applied topically showed evidence of local or systemic toxicity. In a limited control study, early application of zirconium hydrate apparently was able to prevent the development of poison ivy dermatitis.

The application of cloths wrung out in ice water is a standard method for controlling intense itching in poison ivy dermatitis.[8] Going further along this line, Robinson[45] employed ethyl chloride as a refrigerant spray and reported that it gave excellent results in the treatment of Rhus dermatitis. However, following their comparative evaluation of various forms of treatment, Hoagland and his coworkers[40] stated that the ethyl chloride spray was "practically worthless."

Conversely, Park[46] used scalding hot water to produce symptomatic relief of ivy poisoning. He stated that an early case of dermatitis can be immediately stopped from itching and will dry. Often a second treatment is not needed. In confirming the efficacy of this method, Powers[47] stressed that the water should be about 130°F. or slightly higher. He doubted, however, that

this rather heroic method would prove popular. Of course, warm baths (90 to 98°F.) containing colloidal material, like cornstarch or oatmeal extract, often give comfort when there is a widespread itchy eruption.[35-39]

Other approaches to the treatment of poison ivy dermatitis are being investigated. Among them is the possibility of enzymic detoxication of the irritant.[16] A few years ago, Sizer and Prokesch[48] studied the effects of the enzyme tyrosinase upon poison ivy oleoresins and extracts, upon urushiol and upon related toxicants. In these and other studies,[49] these workers showed that the enzyme can inactivate the toxicants both *in vitro* and upon the skin surface of animals and humans. In a review[50] of this work, hope was expressed that these investigations would result in a new method of treating poison ivy dermatitis. In newer work, Sizer[51] demonstrated the oxidative inactivation of poison ivy allergens by peroxidase plus hydrogen peroxide.

In the studies made by Klasson,[52] ascorbic acid was used in both the treatment and prevention of poison oak dermatitis. Preferably administered intramuscularly, with oral dosages as supportive measures in some cases, the vitamin was given to 126 patients with favorable results. The earlier such treatment was initiated after exposure, the quicker and more favorable was the recovery. The first sign of improvement was a reduction in itching. Klasson feels that, through its physiologic action, ascorbic acid has possibilities in preventing the contraction of poison oak dermatitis. It promplty alleviates the symptoms of the already-contracted condition.

BIBLIOGRAPHY

1. Downing, J. G. New England J. Med. 242:546, 1950.
2. Pillsbury, D. M., Sulzberger, M. B. & Livingood, C. S.: "Manual of Dermatology," Philadelphia, Saunders, 1943, pp. 182-5.
3. Turner, C. E.: Am. J. Pub. Health 37:7, Jan. 1947.
4. Council on Pharmacy and Chemistry, A. M. A.: "New and Nonofficial Remedies," Philadelphia, Lippincott, 1951, pp. 3-7.
5. Vintinner, F. J.: New Hampshire Health News 29:72, Aug. 1951.
6. Crooks, D. M. & Kephart, L. W.: "Poison-Ivy, Poison-Oak, and Poison Sumac: Identification, Precautions, Eradication" Washington, U. S. Dept. Agriculture, 1951, Farmers' Bull. No. 1972, 30 pp.
7. Thone, F.: Science News Letter 56:26, July 9, 1949.
8. Andrews, G. C.: "Diseases of the Skin," Ed. 3, Philadelphia, Saunders, 1946, pp. 95-102.
9. Stevens, F. A.: J. A. M. A. 127:912, 1945.
10. Mason, H. S.: J. Am. Chem. Soc. 67:1538, 1945.
11. Mason, H. S.: Indust. Hyg. News Letter 8:5, July, 1948.
12. Craig, G. E.: Canadian M. A. J. 64:513, 1951.
13. Anon.: Michigan Pub. Health 29:130, 1941.
14. Anon.: "Merck Manual of Diagnosis and Therapy," Ed. 8, Rahway, Merck, 1950, pp. 1350-3.
15. Templeton, H. J. Lunsford, C. J. & Allington, H. V.: J. Investig. Dermat. 8:53, 1947.
16. Prokesch, C. E.: Arch. Pediat. 67:267, 1950.
17. Goldman, L.: Ohio State Med. J. 40:629, 1944.
18. Matthews, S.: Science News Letter 58:154, 1950.
19. Schwartz, L., Dunn, J. E. & Goldman, F. H.: Pub. Health Rep. 57:578, 1942.
20. Howell, J. B.: Arch. Dermat & Syph. 48:373, 1943.
21. Novscovich, G. C.: Naval Med. Bull. 46:813, 1946.
22. Gold, H. & Masucci, P.: J. Allergy 13:606, 1942.
23. Ellis, F. A.: J. Allergy 14:557, 1943.
24. Hoagland, P. J.: New England J. Med. 242: 130, 1950.
25. Clarke, J. R. & Hanna, C. M.: J. Allergy 13:599, 1942.
26. Gaillard, G. E.: J. Allergy 21:55, 1950.
27. Strauss, M. B. & Spain, W. C.: J. Allergy 17:1, 1946.
28. Stratton, E. K.: California Med. 66:70, 1947.
29. Buchanan, R. N., Jr.: Tennessee State Med. Assoc. J. 44:226, 1951.
30. Howell, J. B.: Ann. Allergy 5:219, 1947.
31. Shaffer, B., Burgoon, C. F. & Gosman, J. H.: J. A. M. A. 146:1570, 1951.
32. Editorial: J. A. M. A. 136:432, 1948.
33. Keil, H.: Ann. Allergy 8:356, 1950.
34. Hoagland, R. J. & Myers, P. W.: U. S. Armed Forces Med. J. 1:562, 1950.
35. Howell, J. B.: Texas State J. Med. 45:349, 1949.
36. Burks, J. W., Jr.: New Orleans Med. & Surg. J. 99:1, 1946.
37. Witherspoon, F. G.: Tennessee State Med. Assoc. J. 40:1, 1947.
38. Anon.: "Poison Ivy," Health Information Series No. 65, Washington, Public Health Service, 1949, 4 pp.
39. Editorial: J. A. M. A. 143:1380, 1950.
40. Hoagland, R. J., Myers, P. W. & Cosand, H. C.: J. A. M. A. 146:612, 1951.

(*Continued on page 692*)

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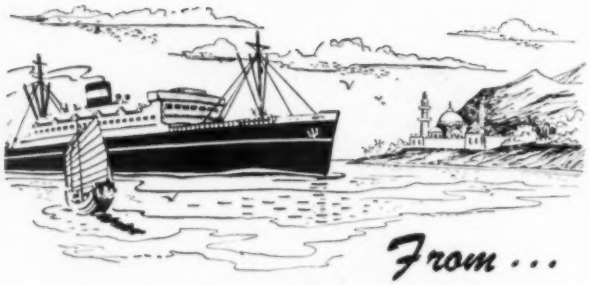

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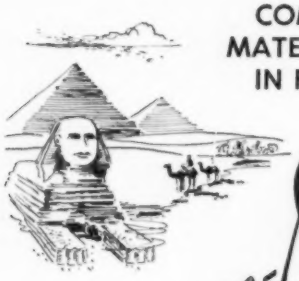

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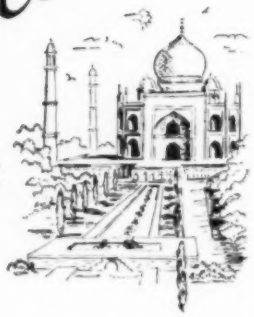

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(Continued from page 691)

41. Carrier, R. E., Krug, E. S. & Glenn, H. R.: J.-Lancet 68:240, 1948.
42. Blumenthol, L. S. & Rosenberg, M. H.: Med. Ann. Dist. Columbia 16:86, 1947.
43. Kesten, B. M.: Ann. Allergy 6:408, 1948.
44. Cronk, G. A. & Neumann, D. E.: J. Lab. & Clin. Med. 37:909, 1951.
45. Robinson, M. M.: J. Investig. Dermat. 8:239, 1947.
46. Park, F. E.: J. A. M. A. 128:1186, 1945.
47. Powers, R. A.: J. A. M. A. 129: 647, 1945.
48. Sizer, I. W. & Prokesch, C. E.: Science 101:517, 1945.
49. Sizer, I. W. & Prokesch, C. E.: J. Pharmacol. & Exper. Therap. 84:63, 1945.
50. Editorial: J. A. M. A. 128:594, 1945.
51. Sizer, I. W.: J. Investig. Dermat. 16:103, 1951.
52. Klasson, D. H.: Arch. Dermat & Syph. 56:864. 1947.

The Pharmaceutical Future

(Continued from page 609)

product which will take its place with streptomycin and PAS to carry out the treatment of tuberculosis with drugs over a long period of time. It makes possible the treatment with three drugs instead of two which should be of considerable help. However, the answer to tuberculosis has not been found, and research can be carried on just as intensively as it was before this latest drug was heard of.

Then the cancer problem is still with us. However, this problem is receiving the attention that it deserves and within another decade or two there should be some very definite answers to this malady.

Mental disorders continue to increase as evidenced by the continued expansion in state institutions for treatment of these diseases. This is a field with which the pharmaceutical industry has comparatively little to do. However, here is a field that is wide open for research, both from the point of view of the medical profession, and also from the point of view of the pharmaceutical manufacturing industry. It is time that some real products of real efficacy in certain types of mental disorders were developed. Once such products are developed, manufacturers will be amazed by the widespread demand for them. Merely because most of the sufferers from these diseases are in institutions is no reason why research should not be more intensively conducted to discover new therapeutic agents for these disorders. Such institutions lend themselves most perfectly to true evaluation of clinical treatment. Certainly here is field in which rich rewards could be reaped by those who are willing to take a chance. Merely because these diseases have not as yet succumbed to drug therapy, is no reason to believe that efficacious drugs cannot be found for treatment of mental disorders.

We have only touched the highlights of a situation which indicates that the future of the pharmaceutical manufacturing is extremely bright. The number of really efficacious products for control of diseases truly appears extremely small in number when one thinks of the many conditions which do not submit to treatment. When one considers how very little is really known about the human body and its processes, one can readily realize that the treatment of disease through drug products is just about beginning to be appreciated. Remember that it is less than fifty years since Ehrlich discovered arsphenamine; less than 15 years since the sulfa drugs came upon the scene; only about ten years since real investigation of penicillin started—heralding

the antibiotic age—and less than five years since the synthesis of cortisone.

When we really consider how relatively few things have been discovered during this time, but how many different basic methods of treatment of diseases have been revealed within the past fifteen years, we at once must realize that our vision has been widened immeasurably. Also we realize that there is no limit to what can be accomplished. The pace is quickening, and new discoveries of real merit should issue at a much more rapid rate.

A.P.M.A. Meeting

(*Continued from page 605*)

producer in the world. India has announced a $3,250,000 government penicillin manufacturing project, and even Siam has a government pilot plant operating in antibiotics. In other than antibiotics the picture is similar, though perhaps not so dramatic.

"Not only have the foreign facilities for drugs and medicinal chemicals taken over much or all of the local markets for their products, but in many cases the capacity has exceeded current need. Late last year organization for European Economic Cooperation published a report on exportable surpluses of chemical products in European countries. It is interesting to flip through the pages and see the number of chemicals so long in tight supply which are now listed as in ample or adequate quantities for surplus export.

"A recent edition of the Journal of the Association of German Chemical Industries likewise pointed out that Western Germany by 1950 had reached an export level of $21,000,000 of pharmaceutical products with an expectation of very substantial increases in 1951 and thereafter. They have not yet reported the complete figures for 1951, but preliminary indications are that their prediction is well fulfilled. The Japan Penicillin Association estimates that 30 per cent of the penicillin production of that country is being exported."

Dr. McLean then spoke on special trade and monetary agreements recently completed between various European and Asiatic countries and presented an "incomplete" list of twelve of these pacts which dealt specifically with drugs and chemicals. He continued:

"While I am on the subject of trade agreements, I wonder how many of us have clearly in mind the United States part in the Torquay agreement which was negotiated between September 1950 and April 1951. There was some flurry at the time and a few protests by industry, but to a great extent the tight supply situation of a year ago masked at that time the implications of the concessions made.

"Do you remember that major cuts were granted by the United States representatives in citric acid, in all alkaloids, in acetanilid, acetophenetidin, acetylsalicylic acid, and other coaltar medicinals? Some people taking a shortsighted point of view might welcome the resulting imports, but I doubt that any, after mature consideration, will welcome any move that would jeopardize

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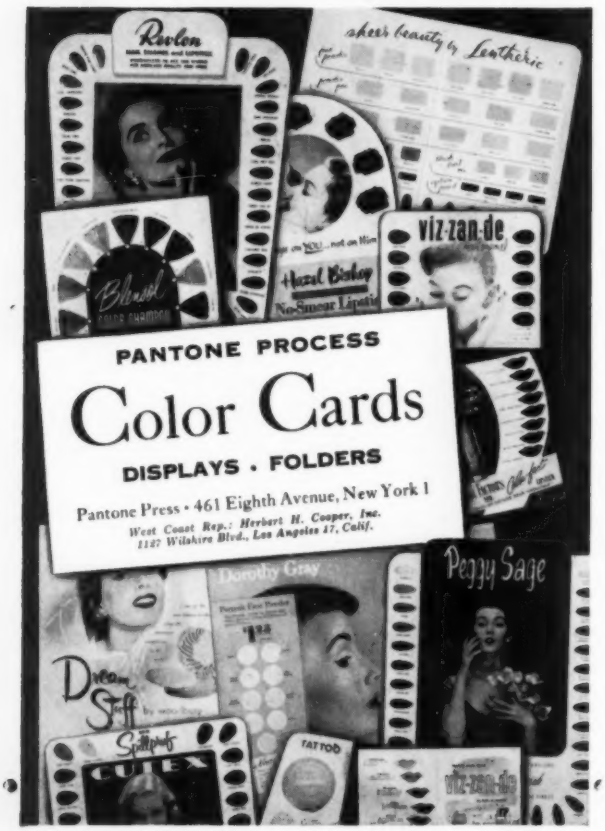

the strength of our industry in these or other important medicinal chemicals.

"And let us not be too complacent when a particular item we are concerned with does not stick out like a sore thumb on the tariff reports. With the broad classifications involved and the relative freedom of an importer to designate an item in his desired terminology, we may not wake up to the intruder until he is in our backyard or even in our dining room eating our dinner.

"In the Torquay negotiations, United States concessions in various fields were made to seventeen countries. In return, the United States obtained no concessions of importance from any foreign countries in the field of drugs and medicinal chemicals. We must be alert to such maneuvers and must insist that our industry not be traded away just for the benefit of others.

"What does all this add up to? Should we turn isolationist and ignore the rest of the world? I think that we would all agree that that is impractical, unrealistic, and unprofitable. Should we stop building plants overseas or licensing our foreign patents? This, too, would be no answer, although here we must weigh carefully all the risks involved and must expect proper recognition of our contributions not only as a nation but as an individual United States business.

"Should we look to our government for subsidies and lean on them as a crutch to help us in fighting our battles for world trade? I Personally feel very strongly that this is not the answer. I hope we may soon look for an era of less government in business instead of more.

"If not these, then what is the route for us to follow? The potential is there. To get our share of it we must first and foremost be strong as an industry. I believe that we can claim without exaggeration that the label of the United States pharmaceutical industry is now the standard of comparison throughout the world. We must work together to maintain that reputation. We must use our industry associations for mutual help to promote the strength of our industry at home, and thereby inevitably our strength abroad.

"But above all, we must look to the research laboratories to keep our industry ahead in the race to supply the international demand. No matter how disquieting the situation may appear, we must not retrench in our own research:—medical research to permit better understanding of physiology, better diagnosis, and more accurate identification of disease processes; chemical research to develop new compounds and synthesize new therapeutic agents; and above all, production research to keep our costs so low that even with lower wage scales, high tariffs, and national preference, the countries of the world cannot afford to shut out—and cannot follow the road to health without—the economical, effective, and efficient products of the American pharmaceutical and medicinal chemical industries."

The 1952 Research Award, of the association was conferred upon Dr. Rene Jules Dubos, Member, Rockefeller Institute for Medical Research, and world-famous authority on tuberculosis, "for his many

contributions to the foundations of science on which the practical advances of medicine have been built." The award citation hailed Dr. Dubos as "perhaps the greatest authority on the bacteriology, immunology, and biochemistry of the bacillus of tuberculosis." The French-born scientist's research work in this country during the past twenty-five years resulted in the discovery of the first two antibiotics, tyrothricin and gramicidin, which led to the development of penicillin and streptomycin.

Dr. Martin Lasersohn, vice-president of Winthrop-Stearns and chairman of the award committee, said:

"Dr. Dubos' tyrothricin marked the beginning of the antibiotic age. Obviously the importance of his contributions in this field cannot be overemphasized. In one year, 1951, the amount of antibiotics made and used totaled up to something like $650,000,000, and one could not even begin to calculate what this means in the saving of lives, the alleviation of suffering, and the prevention of the great number of complications which accompany the infectious processes.

"The median age at death of those suffering from tuberculosis is forty-eight. We all know that life expectency in the United States of normal people is sixty-eight years. If you cure one tubercular patient, you put him in the sixty-eight-year life expectancy. In other words, you have restored to him twenty years of living. Cure, let us say, 90 per cent of the 34,000 cases who would otherwise die, and you have given to these people 612,000 years of life. This simple arthmetical excerise gives an idea of what a great medicinal discovery may mean to the people of the country and the country itself."

When Dr. Dubos was assistant editor on the staff of the International Institute of Rome in 1922 he became interested in microbiology. In 1924 he came to this country and became associated with Dr. Selman Waksman at the New Jersey Agricultural Experimental Station, obtaining his Ph.D. degree there in 1927. He then joined the Rockefeller Institute and became a full member in 1942. From 1942 to 1944 he was George Fabyan professor of comparative pathology and professor of tropical medicine at Harvard Medical School, then returning to the Rockefeller Institute.

In his acceptance address, Dr. Dubos traced the historical and social aspects of tuberculosis, noting the progress thus far accomplished in the cure of the disease. Stating that the goal should be the prevention rather than the cure of tuberculosis, Dr. Dubos expressed the opinion that the drug which will eradicate tuberculosis has not yet been found. Speaking of the recently discovered antibiotics and of isonicotinic acid hydrazide, he stressed the fact that they are effective only in the most acute and advanced cases.

A special award of distinction was presented to Dr. Paul B. Dunbar, retired U. S. Commissioner of Foods and Drugs. Presentation was made by Dr. Theodore G. Klumpp, president of Winthrop-Stearns, who was Dr. Dunbar's first chief of drug control.

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Information Foundation, said that HIF has come of age. "Not only has it organized its personnel for the job blue-printed by its founders in the pharmaceutical, chemical and allied industries," said Adm. Blandy, "but it has already accomplished several man-sized projects and is well on the way toward completing others which two years ago were but plans on paper. Moreover the Foundation is contemplating additional projects in its program designed to stimulate a better understanding and utilization of health progress, care and services in the United States and to help bring about still further improvement in Health care, services and facilities."

Adm. Blandy told of several projects in which the Foundation is interested. These are a two-year study at Columbia University, under a grant from HIF, of the various methods by which Americans currently pay for medical and other health care; a research program designed to improve the health of school children recently established at Pennsylvania State College with a grant of $35,000 from HIF; a study of the financing of hospital care, in which HIF joins forces with the Rockefeller and Kellogg Foundations, John Hancock Mutual Life Insurance Company, the Milbank Memorial Fund, and the National Foundation for Infantile Paralysis for a two-year project to cost $500,000, and to be conducted by the Commission on Financing of Hospital Care, sponsored by the American Hospital Association and headed by Gordon Gray, president of the University of North Carolina and former Secretary of the Army, as chairman; and a study of the medical service program of Toledo, Ohio, the results of which are shortly to be published.

Dr. W. Paul Briggs, executive director of the American Foundation for Pharmaceutical Education, told of the program of teaching fellowships in business administration established by the Foundation to aid colleges in strengthening their work in the business subjects of pharmacy. The program was initiated, said, Dr. Briggs, as the result of a survey which revealed that:

"The future of the profession of pharmacy is to be determined not only by the scientific techniques and the aspirations of the profession but also by the surrounding realities of American economic life and social practices."

The survey stressed the fact that the vast majority of drug stores are dual in character, first, a pharmaceutical service and a health supply center, and, second, a convenient distributing center for a wide variety of goods; the material solvency of the first frequently has become dependent upon the second. Said Dr. Briggs:

"Applicants for the fellowships are selected by our board of grants will devote half time to teaching in the school of pharmacy, and half time to graduate studies in their own or a nearby university graduate school of business administration. To the extent that our funds will permit, the Foundation will match, in equal amount, the salary paid such teaching fellows by the school, but not less than $1,800, or more than $3,000 per twelve-month year. Thus the total income of these teaching fellows should approximate their current earnings and enable colleges rapidly to establish urgently needed training in this area.

"Normally such teaching fellows will obtain their graduate degree in two or three years, but it is felt that even after their first year of graduate study, they will be qualified to teach some of the courses in the business of pharmacy. After obtaining their graduate degrees, these teaching fellows will be prepared to teach effective, under-graduate courses to future pharmacists. And under this plan, an adequate supply of well-trained teachers of pharmacy administration should be available in a few years, rather than after it is too late.

"With this Foundation incentive, both to pharmacy colleges and to future teachers, we believe that rapid progress will be made. Without this sort of stimulus to quickly produce competent teachers, it is doubtful that really good business training could be provided in the immediate future, except in a relatively few fortunate colleges of pharmacy. In fact, the majority of colleges of pharmacy replying to our questionnaire on the desirability of such a program, advised that they needed this help; would have a qualified candidate to recommend for a teaching fellowship; and could get matching salary funds from their university to accept the Foundation offer, some by September 1952, and others the following year.

"We have high hope for the productiveness of this new Foundation program. We hold equally high hope that the industry will want to provide extra support to enable us to extend the limited number of these teaching fellowships that we can now afford. If it does within a very few years a supply of well-trained pharmacists, also well trained in economics, business administration, merchandising, and salesmanship, will be available to instruct pharmacy students and thereby improve the position of retail pharmacy, the wholesale trade, and your own manufacturing industry."

Michael Francis Charley, president of the Standard Pharmacal Co., Chicago, was elected president of the Association. Robert A. Hardt, vice-President, Hoffmann-LaRoche, was elected eastern vice-president; Kenneth F. Valentine, president, Pitman Moore Co., central vice-president; and G. Preston Snow, president, Hyland Laboratories, west coast vice-president. Retiring president Howard B. Fonda, senior vice-president of Burroughs Wellcome, became a member of the board of directors. Others elected to the board are: J. Paul Folsom, general sales manager, Lederle Laboratories; F. N. Schwartz, president, Bristol Laboratories; W. S. Bucke, president, Lafayette Pharmacal; Jack Schopflin, executive vice-president, E. S. Miller Laboratories; Dr. F. F. Yonkman, research director, Ciba Pharmaceutical Products; and Charles F. Miles, president, Ames Co.

Three resolutions adopted by the association recognized the services of three men who reached the end of

their years with the industry—Dr. Dunbar, Carson P. Frailey, who is retiring as executive vice-president of the American Drug Manufacturers Association, and Dr. Frank B. Fisk, who is retiring as secretary of the Combined Pharmaceutical Contact Committee. Another resolution recognized the centennial of the American Pharmaceutical Association.

Antiperspirants and Deodorants

(Continued from page 607)

represent a partial neutralization of the acids produced on hydrolysis and removed—while the salts of amino acids represent an attempt to neutralize the acids of hydrolysis as they are formed.

Evaluation of these agencies in broad general lines is difficult. Certainly both types appear to be acceptable from a sales standpoint. Certain preparations have incorporated in them mixtures of both ideas.

The most significant new approach to the antiperspirants has been the squeeze-bottle method of spray application. This segment of the market has been growing at a fast steady rate and more manufacturers are entering it. I believe that this tendency certainly allows greater scope for formulation since the solvent is no longer limited to water as is true in a cream. For example the addition of alcohol as a solvent in conjunction with water in many instances would render certain aluminum salts soluble where they might otherwise start precipitating due to aluminum hydroxide formation as a result of hydrolysis. The increased amount of alcohol in the formulation would also help in the drying characteristics of the applied film.

The discussion has so far been limited to aluminum salts but in future developments there seems to be an indication that other metallic salts may be used to equal or better advantage. There has recently been some mention in the literature of zirconium salts as possible antiperspirants. Indeed, a patent has been issued recently on a method for preparing useful compounds of zirconium for antiperspirant effect. As far as the author knows there has not been enough work done so that these newer compounds could be evaluated against the existing media.

The field however is wide open and I believe we may expect an increasing number of innovations as time goes on. This tendency seems indicated by the increased awareness of the public of its personal appearance and impressions, so we may expect a greater effort on the part of the manufacturer to develop a better product. This is not a short-term project, however, since proper evaluation not only of antiperspirant activity but of other physical effects due to prolonged use would of necessity be time consuming.

Coloring of Pharmaceuticals

(Continued from page 617)

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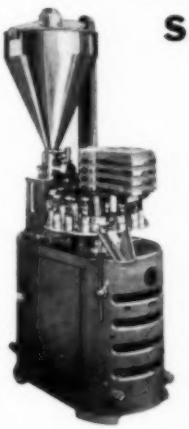

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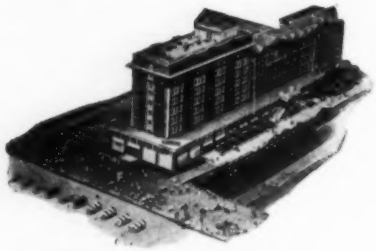

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III. Yellow Effects

F.D.&C. Yellow No. 3—Oil Yellow AB imparts a slightly reddish yellow color. In admixture with F.D.&C. Yellow No. 4 or F.D.&C. Orange No. 2 it is widely used for coloring butter and oleomargarines. Its solubility properties are similar to those given above for F.D.&C. Red No. 32, but in general it is appreciably less resistant to reagents and light than that product.

F.D.&C. Yellow No. 4—Oil Yellow OB imparts a reddish yellow color, somewhat redder in hue than that given by F.D.&C Yellow No. 3, but otherwise it is very similar in solubility and fastness properties. In many applications it can be replaced by a mixture of F.D.&C. Yellow No. 3 and F.D.&C. Orange No. 2.

D.&C. Yellow No. 11—Quinoline Yellow—Spirit Soluble imparts a bright greenish yellow color, practically identical with its water-soluble derivative D.&C. Yellow No. 10. By using these two dyes the inner and outer phases of some emulsions can be brought to the same hue. Both of these dyes are characterized by very good resistance to reducing agents. D.&C. Yellow No. 11 is somewhat difficult to dissolve, but it is soluble in alcohols, esters, ethers, fats, fatty acids, hydrocarbons, ketones, oils and waxes. It is very sparingly soluble in glycerine and glycols and insoluble in water. Its resistance to light and oxidizing agents is poor. When used in combination with D.&C. Green No. 6 a wide range of green color effects may be obtained, for example an equal part mixture of each dye yields a color close to "Mint."

IV. Green and Blue Effects

D.&C. Green No. 6—Alizarine Cyanine Green Base imparts a slightly dull, bluish green color. This color is practically identical with that of its water-soluble counterpart D.&C. Green No. 5, so that by using these two dyes both the inner and outer phases of emulsions may be brought to the same hue. D.&C. Green No. 6 is featured by having moderate to good fastness to light and alkalies. It is rather difficult to dissolve, but it is soluble in esters, glycol ethers, fats, fatty acids, hydrocarbons, oils and waxes. In certain waxes however it is subject to "gas fading," a slow distruction during storage, so that careful storage tests are recommended when it is used in waxes. It will color vegetable oils, including olive oil, but legally adulterates them if used in food. It is very sparingly soluble in alcohols, ethers and ketones, and is insoluble in water, glycerine and glycols. It has good resistance to acids, but is badly affected by oxidizing and reducing reagents. It is a useful ingredient in colorant mixtures with F.D.&C. Orange No. 2 and F.D.&C. Red No. 32 to produce brown color effects, and with D.&C. Violet No. 2 for blue color effects.

V. Violet Effects

D.&C. Violet No. 2—Alizarine Irisol Base imparts a slightly dull, bluish violet color. It is soluble in esters, glycol ethers, fats, fatty acids, hydrocarbons, oils and waxes. In certain waxes it is subject to "gas-

fading," a slow destruction during storage, so that careful storage tests are recommended when it is used for coloring waxes. It is very sparingly soluble in alcohols, ethers and ketones and is insoluble in water, glycerine and glycols. It has good resistance to acids, only moderate fastness to light and poor resistance to oxidizing and reducing agents. It is useful in colorant blends with D.&C. Green No. 6 to produce rather dull, blue color effects, and with D.&C. Red No. 18, F.D.&C. Red No. 32 to get red violet and maroon color effects.

3. *Hues*—Consumer research indicates that drugs are acceptable having almost any color. However, most color preferences are not without reservations or associations; for example, a mint flavored prescription is more acceptable when colored green than when colored brown or red. (Persons may like blue colors, but might hesitate to buy blue colored butter.) Generally red, orange, yellow and green colored products seem to have the greater "appetizing appeal."

As was pointed out in the summaries of colorant application properties above, in practical work it is often advantageous to use mixtures of red, yellow and blue dyes rather than to use "straight," unblended colorants. Such mixtures can cover such a wide range of hue effects that they often permit of a considerable limitation of the number of colorants carried in inventory.

When signal systems, particularly where "uncompletely-color-blind" operators are concerned, and when dichromatic effects occur the spectral properties of the colorants used are unusually important factors in colorant selection.

4. *Solubility*—The type of vehicle used indicates whether water-soluble, alcohol-soluble, hydrocarbon-soluble or insoluble colorants should be used. The presence of hardness or metallic salts in the water or the product will influence solubility.

5. The *Chemical Reactivity* of a product is an important feature. Its tendency to cause reduction, to form dye complexes and its acidity, alkalinity or neutrality should be considered. The presence or absence of chlorine (in water), preservatives, catalysts, inhibitors and special reagents may be decisive factors in the hoice of colorant.

6. The *processing requirements*, such as the resistance to the engineering conditions, including ease of solution or dispersion and stability to heat.

7. The *end-use requirements*, such as resistance to light, and affinity for proteins (staining properties).

8. *Consult Data Tabulations.* When colorists have once determined the processing and end-use requirements of their product and know the fastness properties their colorants must meet, they will obtain considerable aid in selecting coloring agents for trials by referring to data tabulations for the specific colorants.[9] For example, many pharmaceutical colorists have found particularly useful the various fastness groupings of some water-soluble dyes shown in Tables X, XI, XII.

9. *Ethical and Legal Restrictions.* Colorants must be selected and used only in ways and materials that meet

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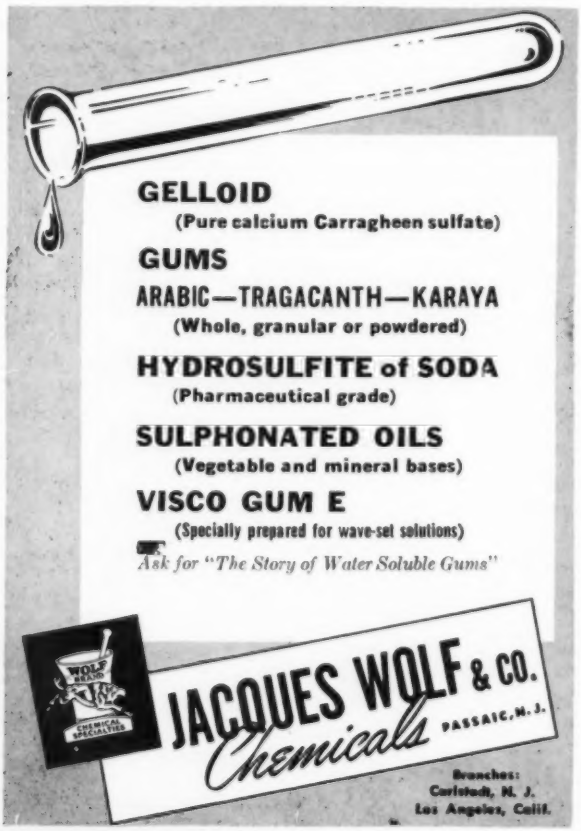

the ethical and legal restrictions that have been placed, both in the United States and in many foreign countries (for exported items) on the colorants used to color food, drugs and cosmetics.[4,5] On these points nothing should be left to guess-work, data should be exact, familiarly known and regulations scrupulously followed.

Table X
Water Soluble Certified Dyes Having Good Resistance to Alkalies

F.D.&C. Red No. 3
F.D.&C. Red No. 1
D.&C. Red No. 19
D.&C. Red No. 22
D.&C. Red No. 28
D.&C. Orange No. 6
D.&C. Yellow No. 8
Ext. D.&C. Yellow No. 1
D.&C. Green No. 5
Ext. D.&C. Green No. 1
For blues: Use Mixtures of:
D.&C. Green No. 5
F.D.&C. Red No. 3
Ext. D.&C. Violet No. 1

Table XI
Water-Soluble, Certified Dyes Having Good Resistance to Acids*

F.D.&C. Red No. 1
F.D.&C. Red No. 2
F.D.&C. Red No. 4
D.&C. Orange No. 3
D.&C. Orange No. 4
F.D.&C. Yellow No. 5
D.&C. Yellow No. 10
D.&C. Green No. 5
F.D.&C. Blue No. 2
Ext. D.&C. Violet No. 1

*These dyes have colorant-acids which are water-soluble.

Table XII
Water-Soluble, Certified Dyes Having Good Resistance to Light*

F.D.&C. Red No. 1
F.D.&C. Red No. 4
D.&C. Orange No. 3
F.D.&C. Yellow No. 5
D.&C. Green No. 5
Ext. D.&C. Green No. 1

*Not recommended for use in the traditional apothecary window show-globes.

Because laws can be changed rather readily a compilation of foreign requirements would have limited usefulness. Fortunately there is a trend towards adopting regulations based on those in force in the United States. The principle restrictions in force are: that color effects must not be used to hide inferiority in quality, nor to deceive; that no certified colorants may be used in products destined for use in the "area of the eye"; that only F.D&C. dyes (no pigments) may be used in coloring food or food adjuncts; and that food, drugs and cosmetics colored with "coal-tar" colorants and imported for sale in the United States must be colored with colorants from batches certified in the United States.[6]

10. *Availability of Colorants and Service.* Not all of the 117 colorants on the United States certified list are continuously available. In fact colorists are en-

couraged to limit their inventories, that is, the number and variety of colorants used, because experience has shown that the dyes listed in Table IX will fill the great majority of colorant applications in the pharmaceutical field. Some consideration is suggested also of the availability of technical service for consultation in special applications and "trouble-shooting" problems.

Summary

This discussion has been a review of some of the classifications of colorants that have been found useful to professional colorists; some methods for dissolving dyes have been suggested; a few new solubility data have been listed; the influence on dye solubility of such factors as temperature, the presence of salts and the pH of the solvent have been pointed out; the importance of chemical reactivity and stability in storage has been noted; a number of practical, plant "trouble-shooting" problems have been stated and their answers discussed; the concentration of colorants needed for various types of products as been indicated; brief summaries have been given of the application properties of the twenty-one most useful water-soluble dyes and of the nine organo-soluble dyes; and some of the many factors to be balanced when selecting colorants have been listed. It is hoped that this brief discussion will serve to direct attention to some of the practical details (the manipulative "know-how"), and to these properties of colorants which are of major importance in avoiding and solving problems in colorant applications in the pharmaceutical field.

Patent Statement

Nothing contained herein shall be construed to constitute a permission or recommendation to practice an invention covered by a patent owned by American Cyanamid Company or by others without a license from the owner of the patent.

REFERENCES

1. American Association of Textile Chemists and Colorists "Year Book"—Howes Publishing Co., New York.
2. Committee on Colorimetry—"Report on Colorimetry"—Journal Optical Society of America, Vol. 34, p. 245, p. 633 (1944).
3. Evans, Ralph M. "Introduction to Color"—John Wiley & Sons, New York (1948).
4. Food and Drug Administration, Service and Regulatory Announcements, "Federal Food Drug and Cosmetic Act and General Regulations For Its Enforcement"—Federal Security Agency, Washington, D. C., (August, 1941).
5. Food and Drug Administration, Service and Regulatory Announcements, "Coal Tar Color Regulations", Federal Security Agency, Washington, D. C. (Sept. 1940).
6. Food and Drug Administration, "Import Requirements of the United States Food, Drug and Cosmetic Act", Federal Security Agency, Washington, D. C. (1947).
7. Jolly, V. G.—"Abnormal Colour Vision", Journal of the Oil and Colour Chemists Association, Vol. 29, p. 301.
8. Peacock, Wm. H.—"What Drug and Cosmetic Trade Executives Should Know About Color and Colorants", Drug and Allied Industries, Vol. p. 00, Atlanta, Georgia (1949).
9. Peacock, Wm. H.—"The Application Properties of the Certified "Coal-Tar' Coloranta", Technical Bulletin No. 715, Calco Chemical Division, American Cyanamid Company, Bound Brook, N. J. (1944).
10. Peacock, Wm. H.—"The Practical Art of Color-Matching", Rayon Textile Monthly, Vol. 21, p. 627, et seq., Vol. 22, p. 36, et seq., October 1940-Feb. 1941, Technical Bulletin No. 573, Calco Chemical Division, American Cyanamid Company, Bound Brook, N. J.
11. Peacock, Wm. H.—Chapter on "Stains", Protective and Decorative Coatings, Vol. 3, p. 769, J. J. Mattiello et al., John Wiley & Sons, New York (1943).
12. Rowe, F. M.—"Colour Index", Soc. of Dyers and Colourists, Bradford, Yorkshire, England (1924).
13. Smith, Pierre F.—"Hues Fashioned to Taste", Drug and Allied Industries, Vol. 37, No. 9, pp. 16-18, Atlanta, Georgia (Sept. 1951).
14. Stearns, E. I.—"What's New in Spectrophotometry", American Dyestuff Reporter, Vol. 40, p. 563 (1951), Technical Bulletin No. 820, Calco Chemical Division, American Cyanamid Co.
15. Wright, W. D.—"The Measurement of Colour", Adam Hilger, Ltd., London, England (1944).

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